SUBSURFACE INVESTIGATION REPORT



WUNITED AIRLINES

NEWARK LIBERTY INTERNATIONAL AIRPORT
HANGAR 14
BREWSTER ROAD
NEWARK, NEW JERSEY

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REFERENCES:

- Apex Environmental, Inc., "PCB Characterization Report, Hangar 14, Newark Liberty International Airport, Brewster Road, Newark, New Jersey," March 30, 2005.
- Apex Environmental, Inc., "Phase I Environmental Site Assessment Report, Terminal A-1 Satellite, Gates 11 and 12, Newark Liberty International Airport, Newark, New Jersey," March 23, 2005.



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1.0 INTRODUCTION

This report presents the findings of subsurface investigation activities performed at United Airline's (United's) Hangar 14 facility located in Newark Liberty International Airport, Newark New Jersey. A site location map and site plan is presented in *Figure 1*. The Hangar was utilized by United as their primary ground service equipment maintenance hangar at EWR until March 31, 2006 when United terminated its lease and vacated the premises. The site is currently owned by the Port Authority of New York and New Jersey (PANYNJ) and is reportedly unoccupied.

The hangar historically used hydraulic fluids which reportedly contained Polychlorinated Biphenyls (PCBs) prior to PCB regulation under the Toxic Substances Control Act (TSCA). Hydraulic fluids at the hangar were reformulated to eliminate PCBs so that no virgin materials at the site contained PCBs. There is one area of residual PCB-containing fluid in the hydraulics system that operates the hangar bay doors. Although the historic PCB-containing hydraulic fluid was removed and the hydraulic system was decontaminated in 1994, there has apparently been some leaching of PCBs from system seals back into the hydraulic fluid. A PCB Management Program, including a Risk-Based Disposal Approval, will be developed in coordination with the USEPA to address the hydraulic system and any other PCB impacts at the site following submittal and acceptance of this report.

The presence of PCB-containing hydraulic fluid historically at the hangar is a potential source of PCB detections in sludge, wastewater, and concrete cores at the site. During the PANYNJ's removal of an oil / water separator system (OWS) on the Hangar 14 property, PCBs were detected in soils from within the OWS excavation area. Although it is possible that the PCBs detected during OWS removal were present in the fill materials used during the construction of the airport, United voluntarily initiated a follow-up investigation which included surface wipe sampling, sludge sampling, water sampling, and concrete core sampling to identify and characterize the source of the PCBs. United notified the USEPA, NJDEP, and PANYNJ immediately upon confirmation of the presence of PCBs at levels exceeding 50 parts per million (ppm) in sludge samples at the facility. The results of the follow-up study were then documented in a PCB Characterization Report which was provided to USEPA, the New Jersey Department of Environmental Protection (NJDEP), and PANYNJ in April 2005 (Apex, 3/2005).

The PCB Characterization Report concluded that PCBs were present in floor drain system sludges and in concrete cores collected from the hangar floor. The study further identified the hangar door hydraulics system as a potential of PCB impacts within the hangar. Concerns regarding the integrity of the floor drain system, coupled with the findings of the PANYNJ sampling during OWS removal lead to the recommendation for a subsurface investigation to evaluate soil and groundwater quality at the site. This report documents the results of the subsurface investigation performed.

1.1 Purpose and Objectives

The work completed was designed to determine the absence or presence of PCBs in the subsurface underlying and adjacent to Hangar 14, and to obtain data which can be used in the risk assessment as part of development of the site-wide PCB Management Program and the Risk-Based Disposal Approval (RBDA) application.

Specifically, this investigation has been designed to meet the following objectives:

- Investigate and determine the nature and extent, if any, of PCB impacts to soil and groundwater;
- Investigate upgradient groundwater quality for contaminants possibly migrating onto the H-14 property;
- Collect sufficient data for use in a risk assessment to support an RBDA application.

1.2 Site Location and Description

United Hangar 14 is located at Newark Liberty International Airport in Newark, New Jersey. The hangar is a 45,000 square foot rectangular structure dating to the original airport construction period (c. 1958). The floor of the hangar is constructed of concrete which is 6 to 11 inches thick, although thicker concrete sections have been reported by some United employees. The main features of the hangar relative to the PCB characterization study are the floor drain system and the hydraulics system used to open and close the hangar bay doors. The hydraulic system has been identified as one likely source of PCB contamination at the site and the floor drain system has been impacted through contact with hydraulic fluids contaminated with PCBs. A site plan indicating the general layout of the hangar, including the hydraulic system components and the floor drain system, is provided in *Figure 2*.

1.2.1 Site Operations and PCB History

The hangar was operated by United until March 31, 2006 to maintain aircraft and ground services equipment (GSE). The facility also included equipment storage and offices on the



second floor. The site was utilized by United as their primary maintenance hangar at EWR. The site is currently owned by the PANYNJ and is vacant. Historically, various types of preventative and corrective maintenance of aircraft and ground service vehicles were routinely performed at the hangar. The hangar was also used for storage of large equipment such as fork lifts, lift trucks, aircraft tow vehicles and other equipment needed for jetliner maintenance and operations. Currently all routine maintenance of aircraft has been eliminated from Hangar 14.

With respect to the presence of PCBs at the hangar, it has been determined that a previously used hydraulic fluid was one likely source of PCB contamination at the hangar. Hydraulic fluid containing PCBs had been used historically prior to EPA regulation of PCBs and residual PCB remained in the hydraulic system after elimination of this product in 1977. A previous decontamination event in 1994 removed the majority of PCBs in the hydraulic system; however, it is probable that PCBs were adsorbed into some remote porous elements of the hydraulic system and may have "leached back" into the hydraulic oil after the 1994 decontamination event. PCB–contaminated hydraulic fluid could have contacted the floor, and subsequently entered the floor drain system, during maintenance events and from undetected leakage over time. Some PCBs detected in the soil where the former oil water separator was located could also be associated with existing historically PCB contaminated fill material in the area. This is the only reported PCB usage at the site other than historic transformers which were not located anywhere near the areas impacted by PCBs.

As mentioned in the introduction, PCBs were recently detected at the site during the excavation of a former oil/water separator. Soils in the excavation area and sludge from the OWS were analyzed by the PANYNJ and determined to contain PCBs. Immediately upon identifying PCBs in the OWS sludge, discharges to the entire floor drain system from the hangar were discontinued as a precautionary measure. A temporary holding tank and pretreatment system was installed in June 2004 to allow hangar operations to continue while the nature and extent of PCBs was investigated. This temporary system was installed to capture all wash water and/or spills that occur at the hangar prior to a controlled, pre-treated, and monitored discharge to the PANYNJ industrial wastewater system.

A preliminary PCB field screening program was initiated in June 2004 to follow-up the initial PCB detections. Initial PCB screening conducted from June to July 2004 identified PCBs in sludge and wastewater within the floor drain system as well as within the hydraulic fluid used to operate the hangar door system. Screening wipe samples did not identify any areas of concern relative to surface contamination or potential worker exposure. Based upon the results of the screening study, review of operations, and discussions with United staff, it was determined that previously used hydraulic fluid was one likely source of PCB contamination at the hangar.



Discussions with staff and review of historical drawings and physical inspection of the hangar also indicated that the integrity of the floor drain system warranted further investigation. Apex performed a comprehensive, under-slab geophysical study in August 2004, to evaluate the floor drain system integrity and existing under-slab conditions. The geophysical tests performed included ground penetrating radar (GPR) evaluation, an electromagnetic (EM) resonance survey, and line tracing with an electric charge. The geophysical survey concluded that there are voids under the existing floor slab and possible drain system integrity breeches. Based upon these initial results, additional floor drain integrity tests were performed in September to October 2004, confirming floor drain tightness concerns, based upon volume losses recorded during drain line testing.

Due to the physical system design, a pressure / vacuum precision line test was not practical; however, an integrity test similar to that outlined by the United States Environmental Protection Agency (EPA) to evaluate the integrity of concrete sumps was used. The testing procedure included plugging the main trunk outfall at each catch basin, filling up the drains with city water and noting any changes in water level at each drain location. The results of integrity testing indicated that two of the four drain lines could not be verified as tight. A sludge removal interim remedial measure (IRM) was completed in September 2004 to remove readily accessible sludge and contaminated wastewater from the drain systems.

After identifying the likely source of the PCBs and determining the integrity of the drain system, more comprehensive sludge, wastewater, surface wipe, and concrete chip sampling was conducted in September to October 2004, to characterize the site and to develop an appropriate PCB management program. The sample results indicated contaminated sludge accumulation in all drains sampled and the four (4) associated catch basins. In addition, concrete core samples indicated the presence of PCBs within the concrete floor at the hangar. All PCB wipe samples have been reported as containing no PCBs. The PCB Characterization Report documenting all work performed since the June 2004 detection of PCBs at the OWS system was completed and submitted to USEPA in April 2005.

Since submittal of the PCB Characterization Report, United has discontinued all site operations. An additional sludge IRM was completed in March 2006 to remove residual sludge from the drains, catch basins and interior drain manifolds. The March 2006 IRM also included jetting of the lines to more aggressively remove contaminated media. Concurrently with the March 2006 sludge removal IRM, United also replaced the oil in the hydraulic system and post oil change results have indicated that the hydraulic system oil does not contain PCBs at levels exceeding 50 ppm. Upon completion of hangar exit IRMs, all readily accessible sludge from the drains and lines has been removed and no residual PCB above 50 ppm remains in the hydraulic system.



1.2.2 Immediately Adjacent Properties

Immediately adjacent properties include the United Cargo Hangar to the east and a Sky Chefs building to the north. All other adjacent space is open runway and taxiways serving the Airport. There are no residential properties within ½ mile of the subject property. Industrial buildings are located off the airport property approximately 1 mile to the west.

United Airlines Cargo Building 327 is located next to Hangar 14 to the east. This is the site of a former fuel farm for the airport. The hangar was constructed in 2001 and houses the UAL Cargo operations at Newark Liberty International Airport. According to available record reviews, petroleum contaminated soil was encountered and removed from the site during construction of the hangar. There are no other known environmental issues with this site, including any PCB issues; however, PCBs have reportedly been detected in the fill materials that were used to construct much of the present-day airport grounds.

The Sky Chefs building is directly north of the Hangar 14 site. Operations at the Sky Chefs building primarily consist of food preparation activities. We have no records on this site. There are no known environmental issues with this site.

1.2.3 Neighboring Community

There is no relevant neighboring community as this site is deep within the airport property line. Outside the airport the community consists primarily of heavy industry and a major traffic corridor for the North East United States. There are no residential properties within at least ½ mile of the site.



2.0 PHYSICAL SETTING OF STUDY AREA

This section briefly overviews the physical setting of the Hangar with respect to its surrounding environment.

2.1 Regional Setting & Land Use

The Hangar 14 property is located at Newark Liberty International Airport in Newark, New Jersey. The area is highly industrialized and used as an airport. Airport operations typically include flight operations, cargo transfers, maintenance of aircraft, GSE, and misc. support services for patrons (i.e., restaurants, restrooms, shops, etc.). The airport generally consists of two types of areas, restricted access and public access. The Hangar 14 site is within a restricted access area and as such, is not readily accessible to the public. The subject property and its surrounding vicinity within a one-mile radius were observed to be located within the 100-year and/or 500-year flood zone provided by Environmental Data Resources, Inc. (EDR) in the EDR Radius Map with GeoCheck® Database. The site was not identified as being located within a mapped wetland area, nor was visual indication of wetlands observed by Apex during the site reconnaissance. However, the encompassing drainage trench around the airport grounds is identified as both State and Federal wetlands according to EDR.

The subject property and its surrounding vicinity within a one-mile radius were not observed to consist of earthquake epicenters or earthquake quaternary fault lines as identified by the National Oceanic and Atmospheric Administration (NOAA) and the USGS.

To the south, east and north of the airport complex are commercial and industrial sites. Immediately around the airport complex are several rental car agencies and hotels. The airport complex is bordered to the west by US Routes 1 and 9; to the north by Interstate 78 and US 1 and 9; to the east by Interstate 95 (New Jersey Turnpike); and, to the south by the city of Elizabeth, NJ. Beyond the major roadways lie heavy industrial and commercial facilities, such as Anheuser Busch, Inc. just northwest of Terminal A. In summary, the vast majority of surfaces are paved with little vegetation or wildlife. The entire region around the airport is heavily industrialized without any residential population.

2.2 Site Topography and Features

The site is built on a former landfill; the topography is flat with the occasional undulation of settling landfill throughout the site. There are no outstanding topographical features, other than pavement and asphalt areas. Small unpaved areas may be present near building entrances and in landscaped public areas.

According to the United States Geological Survey (USGS) topographic map of the area (Elizabeth, NJ-NY, 1967), the subject property is situated in a nearly flat area at a surface



elevation of approximately 9 feet above mean sea level. The natural land surface at the subject property slopes slightly to the east, but man-made structures have essentially eliminated all significant slope to accommodate airport operations. Surface water run-off most likely traverses the site via overland sheet flow and is directed to the onsite storm water management system. Apex did not observe standing water or wetland-type vegetation on the subject property during the site reconnaissance.

2.2.1 Site Geology and Hydrogeology

According to the Essex and Union County Soil Survey, as provided by the NJ Natural Resources Conservation Service (NCRS) covering the site, soils beneath the subject property are generally classified as Urban Land. These soils are described as highly built-up areas, consisting of more than 90% of the surface of the unit covered by asphalt, concrete, buildings and other impervious surfaces. Soil is highly variable, included are Udorthents, loamy and small areas of undisturbed soils. The undisturbed soils are commonly similar to soils in surrounding or nearby units. It is important to note that the entire airport area is reportedly built upon fill materials that may have some elevated (i.e., above ambient background) levels of objectionable contaminants including petroleum products, PCBs, and inorganics.

The geology at the site where the area is not filled is classified as part of the Piedmont Province. The Piedmont Province is chiefly lowland of gently rounded hills separated by wide valleys, with some ridges and isolated hills rising conspicuously above the general surface, which slopes gently from about 400 feet above mean sea level at its northwestern margin to sea level about Newark Bay. This geology is beach and estuarine deposits of the Holocene Cenozoic era. Due to the presence of fill in the area, the localized geology can vary significantly.

Soil boring logs were developed in connection with the investigation. Data obtained from the soil boring logs and from past site studies were used to better define the local soil types under the hangar and their influence on contaminant transport and fate. The boring logs from the current site investigation are attached in *Appendix A*. The soil boring logs confirmed that the site consists of landfill material below 10 feet with a clay cap present approximately 7 to 10 feet below grade. Coarse to fine sand bedding materials for the hangar floor were present at approximately 2 to 6 feet below grade with a layer of coarse aggregate present directly underlying the concrete slab.

Groundwater was encountered at the site at a depth of approximately 8 to 10 feet below grade surface depending upon location. The groundwater flow direction, based upon gauging of on-site monitoring wells was inferred to be generally toward the north (see *Figure 3*). However, the local flow direction can vary widely due to the presence of fill material. This groundwater flow direction is roughly the opposite of historical gauging events on-site



because of historical pumping related to the past groundwater extraction and treatment systems reportedly in the area. The wells were re-gauged and confirmation of the ground water flow was recorded. The wells were also re-surveyed to confirm elevations. The well elevations are almost all approximately 1.6 ft below what they were in the 1980's and 1990's when they were installed. The difference in elevation is apparently from the site settling caused by the landfill materials underlying the airport.

The ground water flow is generally to the northeast based upon the groundwater data that have been recently collected. Also, since most of this area is landfill and as such is of a heterogeneous nature, ground water flow could be obstructed or influence by the formation and have uncharacteristic anomalies associated with it. Most of the available previous site data are from a time frame when there was ground water pumping and re-injection at the site. This activity would most likely alter the true groundwater flow direction. Therefore, the current ground water flow, absent of any known influences, has been established as northeasterly. The most current well survey is attached as **Appendix B**.



3.0 SITE INVESTIGATION SCOPE AND PROCEDURES

This section of the report describes the scope of the field investigation and the procedures performed to meet data quality objectives.

3.1 Soil Investigation

This investigation consisted of the installation of twenty-nine (29) soil borings located throughout the Hangar area to identify possible areas of concern in shallow (above the water table) soils. The locations where Geoprobe borings were installed during the investigation and a summary of the analytical results are presented in *Figure 4*. Twenty of the borings were included in the initial investigation phase and nine additional borings were added near the former OWS system to further delineate detections of PCB in the initial sampling event.

Soil boring locations were selected to fully assess the two floor drain manifolds (i.e., drain piping main lines and laterals) that could not be verified as tight and to focus on areas where elevated PCB concentrations had been detected either in concrete core samples or within the floor drain system. Thirteen (13) soil borings were completed within the hangar and through the hangar floor. The remaining sixteen (16) soil borings were completed in areas outside the hangar near catch basins related to the floor drain system and adjacent to sewer pipes connected to areas where PCBs had been previously detected within the hangar footprint.

3.1.1 Scope and Procedures - Soils

Interior and exterior soil samples were collected by coring the concrete floor of the hangar (or the tarmac area) and advancing the Geoprobe through the floor into the overburden. Soil samples were collected using a track mounted Geoprobe unit equipped with a two inch outside diameter (OD) by five-foot long sampler. The Geoprobe unit included a hydraulic push/hammer that was used to advance the sampler. Initially, twenty (20) Geoprobes were installed at the site during the investigation. Two soil samples were collected at each of the twenty boring locations (total of forty soil samples). Nine additional borings were added after review of results from the initial soil sampling phase of work. The shallow soil sample at each boring was located at approximately 3 feet bgs and was designed to represent any impacts related to leaching of soils through the concrete floor structure or from leaking pipelines into catch basins. The deeper soil sample was collected at approximately 9 to 10 feet below grade and was selected to determine deeper soil impacts and to aid in the evaluation of possible PCBs in the fill materials.

All soil samples were field screened prior to analytical testing. The photoionization detector (PID) used during the field screening program was a Mini Rae which was calibrated daily to zero air and a 100 parts per million (ppm) isobutylene/air mixture in accordance with



manufacturer's recommendations. Soil screening was completed by holding the probe of the PID directly over the sample and then obtaining a PID reading. A response of less than 1 part per million (ppm) above ambient background using this method was not considered significant and was reported as not detectable. Based upon field screening results, select soil samples were submitted for laboratory analyses for Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs). All sample locations were submitted for PCB analysis.

The soil samples at each location were collected using a Geoprobe sampling rig. The sampling procedure consisted of pushing 1-inch diameter stainless steel rods to the desired sampling depth. The sampling rods were lined with acetate liners. Upon advancement to the desired depth, the sampler was retrieved from the subsurface and the sample liner removed from the stainless steel rods. The soil samples were transferred from the sample liners and placed into laboratory prepared sample containers. Following collection, the sample containers were labeled with a unique sample identification number, date and time of collection, sampler's initials, and the analyses requested. The sample containers were then placed into a cooler pending transportation to the laboratory. Chain-of-custody documentation was maintained at all times during the soil sampling events. All boreholes were filled with cement grout slurry and finished at grade to match existing conditions.

The soil gas screening results are presented in *Table 1*. Field screening results ranged from 0.0 parts per million (ppm) to 1,328 ppm. Soil boring logs are provided in *Appendix A*. The results of analytical testing are discussed in *Section 4.1* of this report.

Soil cuttings generated during drilling activities were placed into a Department of Transportation (DOT)-approved 55-gallon, steel drum for proper off-site disposal.

3.1.2. Soil Analytical Parameters

Soil analytical parameters were set per the NJDEP "Tech Rule" (NJAC 7:26E). Fifty-eight (58) soil samples were collected from shallow soil borings at depths ranging from 3 to 10 feet bgs. All samples were analyzed for PCB. Eight (8) samples were also analyzed for VOC and SVOC at the request of PANYNJ.

Following sample collection, soil samples were transported to EMSL laboratories (EMSL) of Westmont, New Jersey for analyses. Each sample was analyzed for PCBs using USEPA Method 8082. Select samples were analyzed for SVOCs using USEPA Method 8270c and VOCs using USEPA Method 8260b.



3.2 Groundwater Investigation

A limited groundwater investigation was also conducted. This sampling consisted primarily of sampling existing monitoring wells. The procedures followed during the groundwater investigations are discussed below.

A total of five (5) existing monitoring wells were included in the groundwater investigation. In addition, several temporary well points were installed in the field during Geoprobe boring installation. However, groundwater samples were unable to be obtained due to no yield. *Figure 5* indicates the monitoring well locations and a summary of the groundwater sampling results.

3.2.1 Scope and Procedures - Groundwater

The purpose of the groundwater investigation was to evaluate groundwater quality in the shallow zones throughout the site and to determine if there had been any adverse impacts to local groundwater quality with respect to PCBs. Additional VOC and SVOC sampling was performed upon request of PANYNJ.

Groundwater wells were located and water levels recorded before any purging was initiated. Although past documents had indicated multiple wells on-site, only five (5) suitable monitoring wells were able to be located for groundwater sampling. It is probable that other wells had been paved over as part of the routine aircraft tarmac maintenance program, abandoned or covered by heavy equipment. The results of well gauging are presented in *Table 2* and water table potentiometric surface maps are provided in *Figure 3*. As indicated in *Figure 3*, the inferred groundwater flow direction is toward the north which is the opposite of the historic groundwater flow direction while the former remediation system was operational. However, localized variations in shallow flow direction were prevalent. This is likely the result of the artificial cone of depression that was created on-site when extraction wells were historically operating in the area.

Once all ambient water levels were recorded, the wells were purged per NJDEP low flow protocol. The NJDEP low flow purge sampling protocol is attached as *Appendix C*. Well purge logs are provided in *Appendix D*.

After the wells were purged sufficiently, groundwater samples were collected in 40 ml vials for VOC analysis and 1 liter jars for PCB and SVOCs. The vials were filled until overflowing, and a convex meniscus was formed. The vials were capped, inverted, and inspected for the presence of air bubbles. If bubbles were present, the vial was refilled until no bubbles were observed. The jars were filled until overflowing and capped.



3.2.2 Groundwater Analytical Parameters

Groundwater analytical parameters were set per the NJDEP "Tech Rule." Samples were collected from five shallow existing monitoring wells. All groundwater samples were analyzed for VOCs, SVOCs and PCBs. QA/QC samples were also collected and are attached with the analytical reports in *Appendix E*.

The water samples were analyzed by EMSL laboratories (EMSL) of Westmont, New Jersey.



4.0 NATURE AND EXTENT OF CONTAMINATION

This section of the report presents and discusses the results of the on-site soil and groundwater investigation activities that were completed during the investigation. As discussed previously, this report focuses on PCBs. VOC and SVOC analyses were also completed at the request of the PANYNJ and data for these parameters is also included in the discussion where appropriate.

4.1 Soil Characterization

The results of the initial soil sampling program for PCBs (i.e. the initial 20 soil boring locations) are presented in Table 3 and indicated graphically in Figure 4. The primary contaminants of concern (PCBs) were either non-detectable or detected at levels significantly below the TSCA action level of 50 parts per million (ppm) in all samples collected and analyzed. Of the 40 original samples collected and analyzed only three samples (and only two sample locations), indicated the presence of any detectable levels of PCBs: samples S18, S18D and S9D. Sample S9D was re-analyzed using recalibration due to the detection of Aroclor 1268, which is typically not analyzed in the method prescribed by EPA. Since the Aroclor detected was not typical of materials used at the hangar and was in a deep sample in the landfill zone, it is most likely background fill contamination. The other samples, (S18 and S18D) contained Aroclor 1242, which has been the PCB contaminant noted at the hangar. Sample S18, collected at 3 feet bgs, contained 3.1 ppm of Aroclor 1242. Sample S18D, collected at 10 feet below grade within the fill area, contained 33.0 ppm Aroclor 1242. Both samples contained PCB levels within the TSCA level of 50 ppm for classification as remediation waste, but above the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) for total PCBs of 2.0 ppm. These soil samples were taken from the same boring location at different depths in the vicinity of the former OWS system removed by PANYNJ where PCBs were previously detected. Due to the presence of PCBs above NRDCSCs, additional sampling in the OWS area was performed to delineate the extent of the subsurface impacts. The results of this event are noted in the following section. All other PCB sample locations and depths did not contain any detectable levels of PCBs. After review of all soil analyses, the only area of concern for PCBs in subsurface soils was the area near the OWS system that had been previously defined. The data supports that the floor drain system detections of PCBs have not entered the subsurface at levels exceeding EPA TSCA limits.

In addition to the PCB analyses, the following samples were also analyzed for VOCs and SVOCs to screen for subsurface impacts at the hangar:

- S11
- S11D



- S13
- S13D
- S14
- S14D
- S18, and
- S18D.

The VOC and SVOC analyses were completed at the request of PANYNJ.

VOC sample results are summarized in *Table 4*. There were only several VOCs detected above their respective method detection limits. Trichloroethene was detected at 0.360 mg/kg (ppm) in sample S-11D located under the southeast corner of the hangar. The 0.360 mg/kg detected is well below the NJDEP NRDCSCC of 1,000 mg/kg and is not considered a significant concern. Several butylbenzene isomers were detected at sample S18D adjacent to the former OWS area. However, all detections were less than 5 mg/kg and are not considered significant. The total VOCs detected at all sample locations was also well below the NJDEP NRDCSCC of 1,000 mg/kg for total VOCs. Based upon the data, no additional actions with respect to VOCs are warranted at this time.

SVOC sample results are summarized in *Table. 5*. Although there were several SVOCs detected, all detections were relatively low level and present in the deep samples only, consistent with the fill materials at EWR. All detections were within NJDEP NRDCSCC for all parameters except for benzo[a]pyrene (BAP) in one sample. BAP was detected at 2.9 mg/kg in SD-13D which exceeds the NJDEP NRDCSCC standard of 0.66 mg/kg for BAP. All other detections of BAP met both industrial and residential soil cleanup criteria. Due to the documented presence of fill materials and the fact that only low level SVOCs were detected in all samples at the depth of known fill materials (there were no detections of any SVOCs in the non-fill depths), no additional actions with respect to SVOCs are warranted at this time.

4.2 Additional Delineation Sampling

Additional sampling was initiated to delineate an area which was found to have PCB contamination above the 2 ppm NJDEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) threshold. Nine more borings were installed in the former OWS area in order to delineate the contamination. Samples were retrieved at three feet and eight feet BGS. The first set of borings, SB-1 through SB-5, was installed on October 19, 2005 at depths of three feet and eight feet. Sample SB-3 had a PCB concentration of 2.9 ppm at a depth of 3', and 7.9 ppm at a depth of 8'. This is above the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) 2 ppm threshold. An additional soil boring event was initiated



to further delineate the area on November 16, 2005. All samples collected during this event were under the 2 ppm cleanup criteria. PCB levels in all but one sample were non-detect and the one sample with detectable PCBs was SB-6 at 8 ft bgs. This sample had total PCB levels of 180 ppb, not requiring action per NJDEP soil cleanup guidelines. All sample results for the additional delineation borings are provided in *Table 9*.

4.3 Groundwater Characterization

The results of the groundwater investigation performed are presented in *Tables 6 through 8* and summarized graphically in *Figure 4*.

As discussed previously, the localized groundwater flow direction during this investigation was determined to be roughly the opposite of that documented historically at the site. Historically, there were several extraction points on the subject property that created a cone of depression and resulted in a local groundwater flow direction toward the south. The extraction points have been inactive and the groundwater flow direction at the site in the absence of the extraction well points is toward the northeast. As a result of this change in groundwater flow direction, two of the five existing monitoring wells (MW-2A and MW-24) are located down gradient of areas of potential concern. MW -24 is outside the hangar, directly adjacent to the hydraulic system components on the northeast wall and MW-2A is located at the north corner of the building. One of the wells is within the south area of potential concern (well MW-23) and the remaining two wells (MW-4 and MW-15) are southwest and south respectively. Both are roughly upgradient. Temporary well points were installed during the investigation to obtain additional groundwater quality data; however, there was insufficient well yield to collect samples from temporary well points.

The primary contaminants of concern (PCBs) were non-detectable in all well samples (see *Table 6*). When the lack of PCBs in the sampled wells is considered with the non-detectable levels of PCBs in soil samples within the hangar footprint, it can be concluded that the presence of PCBs within the floor drain system at Hangar 14 has not adversely impacted soil or groundwater quality at the site.

Several low-level VOCs were detected in the groundwater samples (see *Table 7*). Benzene was detected at 0.86 ug/l in MW-4 which is an upgradient monitoring well. Chlorobenzene was detected at 0.65 ug/l in MW-15 which is also upgradient of the hangar. The only compounds detected in down gradient wells was o-Xylene which was detected at 0.38 ug/l in MW-2A and 1.8 ug/l of 1,2 Dichloropropane in MW-24. This detection is within the NJDEP Groundwater Quality Criteria and is not considered a significant concern.

As indicated in *Table 7*, all SVOCs were non-detectable except for bis(2-ethylhexyl)phthalate which was detected at 10 ug/l in MW-4. Since this detection is very low level and only present in one upgradient well, SVOCs are not considered a significant concern at this time.



5.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon the data collected during the investigation and the review of historical site data, several conclusions can be made regarding the nature and extent of contamination at the Hangar 14 site. Since the site is built on landfill dating back to the 1920s, low level VOC and SVOC contamination is typical in the site area. PCBs near the former OWS system were either non-detectable or detected at levels significantly below the TSCA action level of 50 parts per million (ppm) in all samples collected and analyzed. Two sample locations near the former OWS system (S-18 which contained 33 ppm total PCBs at a depth of 9-10 feet bgs and SB-3 which contained 2.9 ppm PCB at a depth of three feet, and 7.9 ppm PCB at a depth of 8 feet bgs) contained PCBs at a level exceeding the NJDEP Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) for total PCBs of 2.0 ppm. Due to the presence of existing PCBs in the underlying fill at the airport, it is possible that some portion of PCB impacts in the soils at the site may be related to historic fill.

The following is a summary of the investigation findings:

- Although some contamination is present, the level of contamination is low with only two out of 49 samples containing PCBs above NJDEP NRDCSCCs and no samples containing PCBs above TSCA remediation waste limits. There were no PCBs found under the building slab in the shallow borings in the drain zone indicating that any PCB residuals within the concrete hangar floor or the drain system have not adversely impacted soil quality underlying the hangar.
- There were two sample locations in the area of the former OWS system indicating PCBs at levels exceeding NJDEP NRDCSCCs. S-18 contained 3 ppm total VOCs at 2-3 feet bgs and 33 ppm total VOCs at 9-10 feet bgs and SB-3 contained 2.9 ppm PCB at a depth of three feet, and 7.9 ppm PCB at a depth of 8'. When this data is considered in conjunction with previous soil testing in this area by PANYNJ, it is likely that low level PCBs from the former OWS have locally impacted the soil adjacent to the former OWS system. However, the impacts are minor (well below the 50 ppm action level) and localized based upon the absence of PCBs in groundwater and the fact that most other samples were non-detectable for PCBs.
- The PCBs detected at the former OWS system were identified as Aroclor 1242 and 1254. The one deep soil sample with low level PCBs underlying the hangar (Sample S-9D with total PCBs of 0.86 ppm) was Aroclor 1268 and is believed to be associated with possible fill materials since the shallow sample immediately above the deep sample was non-detectable for PCBs and the Aroclor detected does not appear to be associated with any other PCB detections at the site.



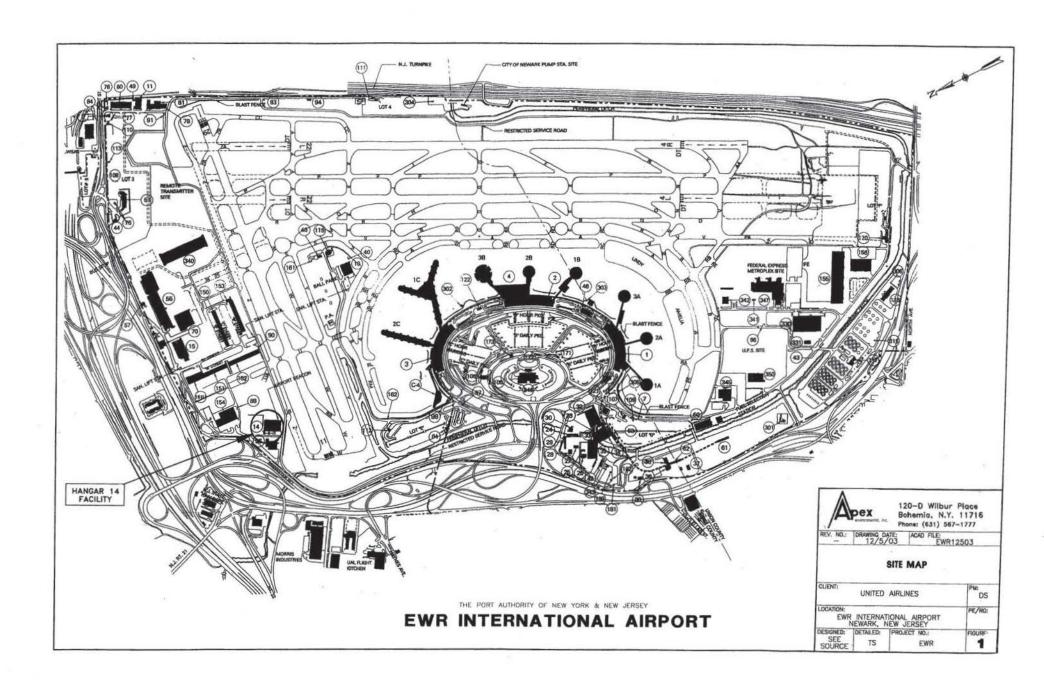
 There were no detections of PCBs in site groundwater in the wells sampled as part of this investigation. Low level VOC and SVOC impacts were detected in upgradient wells in the area.

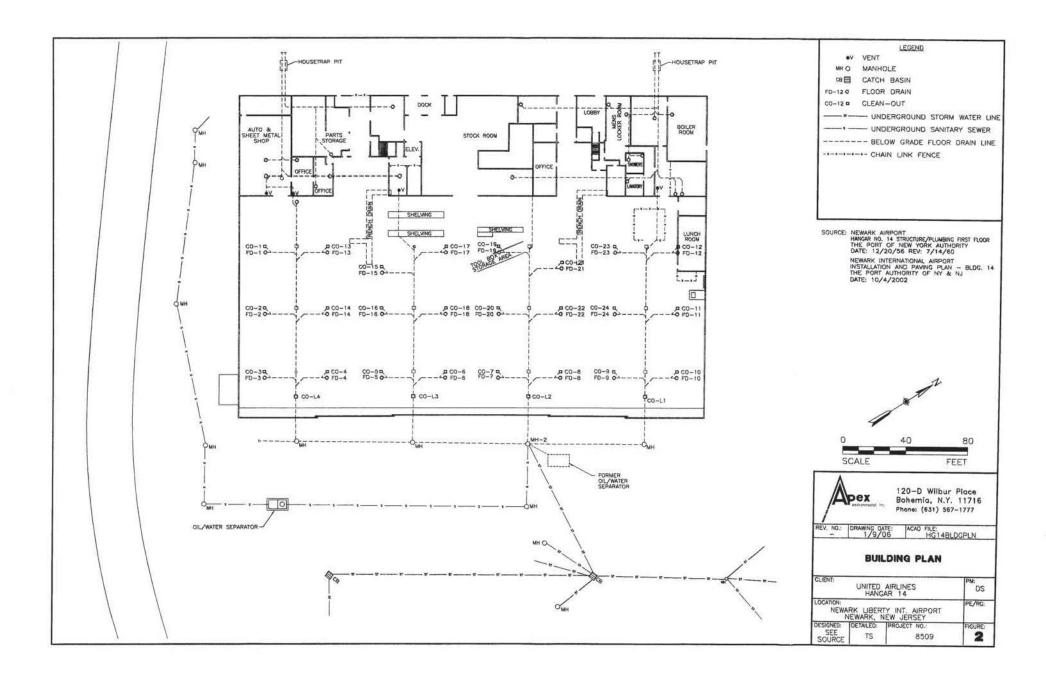
Due to the low concentrations detected in soils in a very limited area, and the low solubility of PCBs in water, no additional groundwater monitoring is recommended at this time. In addition, the small area near the former OWS system where NJDEP soil criteria were exceeded for PCBs should be evaluated as part of the RBDA process to determine what remedial actions, if any, should be considered.

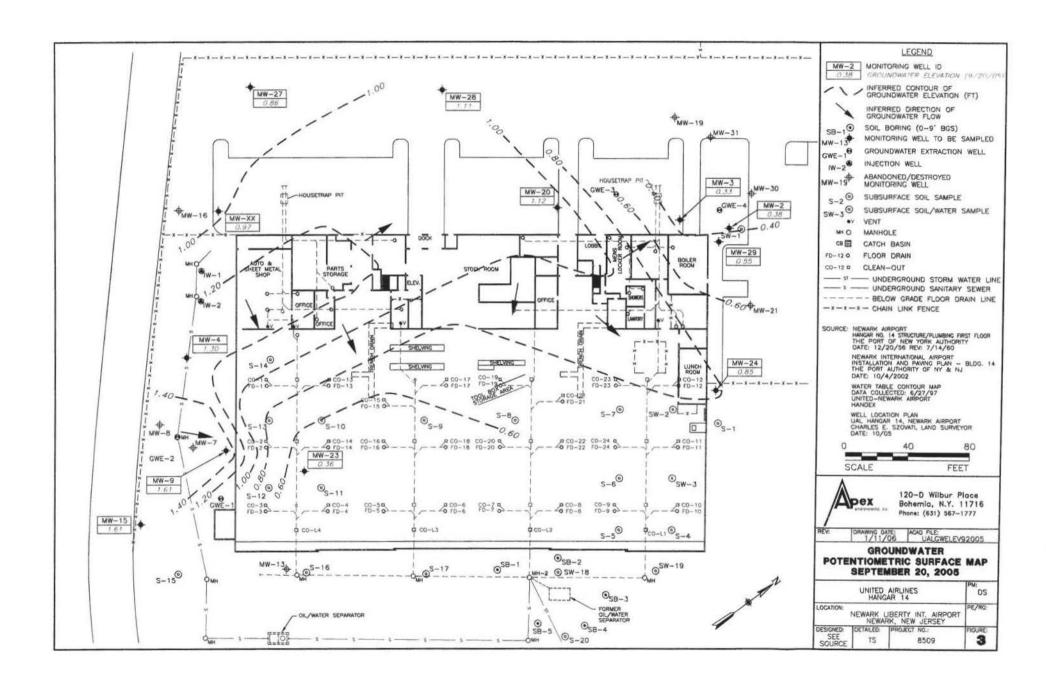


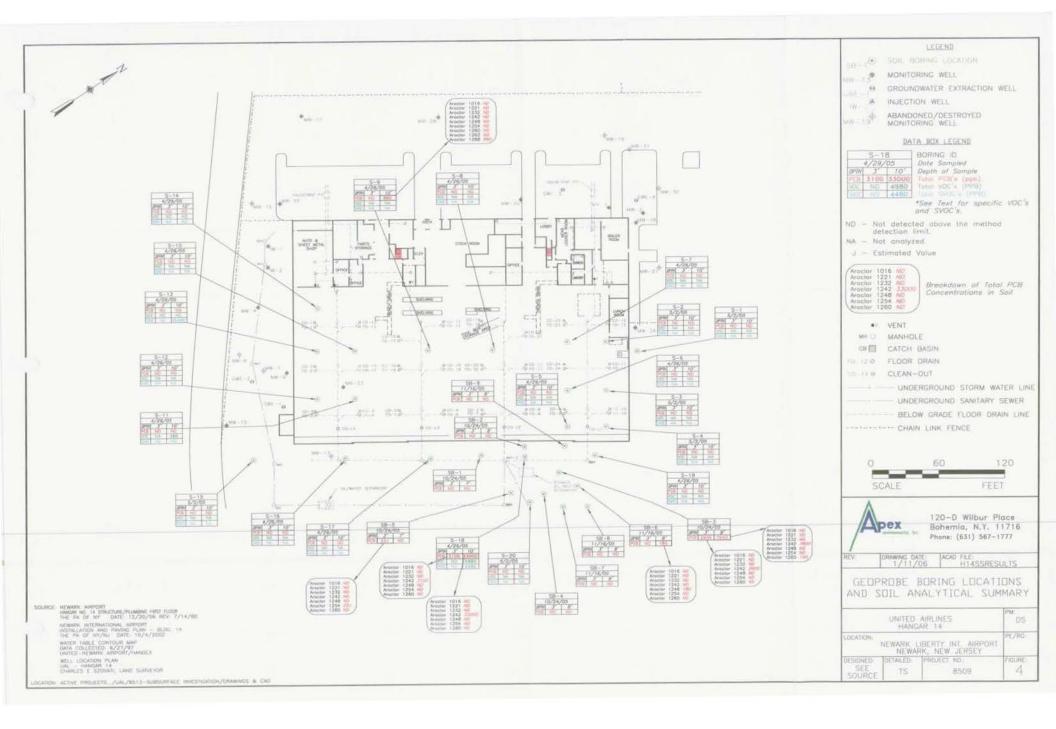
FIGURES

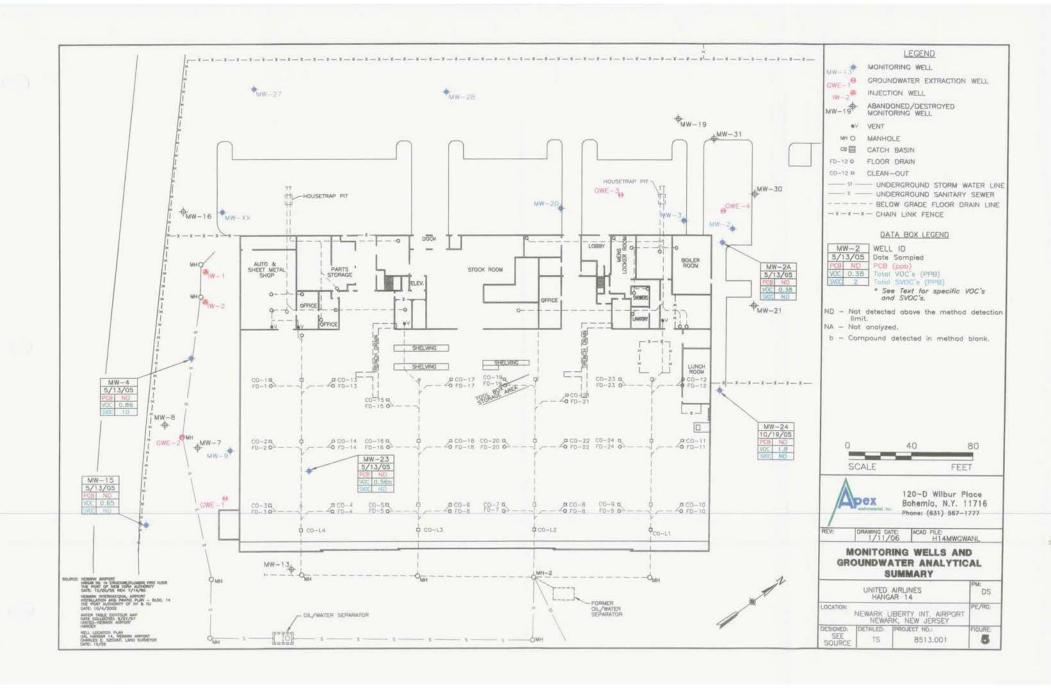












TABLES



Table 1
United Airlines, Inc.
Soil Gas Screening Results

			DATA					
Boring No.	Sample Order	Time	Date	DTW ft.	Sample 1 depth/ft.	PID ppm	Sample 2 depth/ft.	PID
1	20	1:45	2-May	~ 10'	~3'	0	~9'	0
2	17	11:30	2-May	~ 10'	~3'	0	~9'	0
3	18	11:45	2-May	~ 10'	~3'	0	~9'	0
4	19	11:50	2-May	~ 10'	~3'	0	~9'	0
5	10	12:00	29-Apr	~ 10'	~3'	0	~9'	0
6	9	11:30	29-Apr	~ 10'	~3'	0	~9'	0
7	8	10:40	29-Apr	~ 10'	~3'	0	~9'	6.8
8	7	10:20	29-Apr	~ 10'	~3'	0	~9'	0
9	6	10:15	29-Apr	~ 10'	~3'	0	~9'	0
10	5	10:00	29-Apr	~ 10'	~3'	16.5	~9'	0
11	4	9:40	29-Apr	~ 10'	~3'	18.5	~9'	0
12	3	9:30	29-Apr	~ 10'	~3'	197	~9'	1,328
13	1	8:30	29-Apr	~ 10'	~3'	8.8	~9'	3.8
14	2	9:10	29-Apr	~ 10'	~3'	16.4	~9'	0
15	16	10:00	2-May	~ 10'	~3'	0	~9'	64
16	14	2:15	29-Apr	~ 10'	~3'	0	~9'	0
17	13	2:00	29-Apr	~ 10'	~3'	0	~9'	0
18	12	1:30	29-Apr	~ 10'	~3'	58	~9'	384
19	11	1:00	29-Apr	~ 10'	~3'	0	~9'	0
20	15	9:30	2-May	~ 10'	~3'	0	~9'	0

Table 2
United Airlines, Inc.
Groundwater Elevation Gauging Results

	10/19/2005 survey Top of Inner Casing	10/19/2005 survey Top of outer Casing	9/20/2005 DTW	9/20/2005 G W elev.
MW 2	11.56	11.79	11.18	0.38
MW 3	12.7	13.87	12.37	0.33
MW 4	10.22	10.71	8.92	1.3
MW 9	11.67	12.12	10.06	1.61
MW 15	10.57	10.99	8.96	1.61
MW 20	10.93	11.07	9.81	1.12
MW 23	11.14	11.38	10.78	0.36
MW 24	11.18	11.64	10.33	0.85
MW 27	10.57	10.87	9.71	0.86
MW 28	10.31	10.62	9.2	1.11
MW 29	11.32	11.62	10.77	0.55
MWXX	10.96	11.22	9.99	0.97

Table 3
United Airlines, Inc.
Soil Analytical Results Summary - PCBs

		-					-	-					-	-			-		-		-
Parameter	NJDEP NRDCSCC	S1 3 ft bg:	S	S1D 10 ft bg	S	S2 3 ft bg	S	S2D 10 ft bg	IS	S3 3 ft bg	S	S3D 10 ft bg	s	S4 3 ft bg:	S	S4D 10 ft bg	S	S5 3 ft bg	S	S5D 10 ft bgs	5
Aroclor 1016	NA	<0.035	U	<0.038	U	< 0.034	U	<1.600	U	< 0.034	U	< 0.940	U	< 0.034	U	< 0.036	U	<0.034	U	< 0.950	U
Aroclor 1221	NA	<0.035	U	<0.038	U	<0.034	U	<1.600	U	<0.034	U	< 0.940	U	<0.034	U	< 0.036	U	<0.034	U	< 0.950	U
Aroclor 1232	NA	<0.035	U	<0.038	U	< 0.034	U	<1.600	U	< 0.034	U	< 0.940	U	< 0.034	U	< 0.036	U	< 0.034	U	< 0.950	U
Aroclor 1242	NA	< 0.035	U	<0.038	U	< 0.034	U	<1.600	U	<0.034	U	< 0.940	U	<0.034	U	< 0.036	U	<0.034	U	< 0.950	U
Aroclor 1248	NA	< 0.035	U	<0.038	U	< 0.034	U	<1.600	U	<0.034	U	< 0.940	U	<0.034	U	< 0.036	U	< 0.034	U	< 0.950	U
Aroclor 1254	NA	< 0.035	U	<0.038	U	<0.034	U	<1.600	U	<0.034	U	< 0.940	U	< 0.034	U	< 0.036	U	<0.034	U	<0.950	U
Aroclor 1260	NA	<0.035	U	<0.038	U	< 0.034	U	<1.600	U	<0.034	U	< 0.940	U	< 0.034	U	<0.036	U	<0.034	U	<0.950	U
Aroclor 1262	NA	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U
Aroclor 1268	NA	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U
Total PCBs	2	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000	

Parameter	NJDEP NRDCSCC	S6 3 ft bg	s	S6D 10 ft bgs		S7 3 ft bg:	s	\$7D 10 ft bg	S	S8 3 ft bg	S	S8D 10 ft bg	s	S9 3 ft bg	S	S9D 10 ft bg	s	\$10 3 ft bg	s	S10D 10 ft bgs	5
Aroclor 1016	NA	< 0.035	U	< 0.930	U	< 0.067	U	<0.680	U	<0.034	U	<0.048	U	<0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1221	NA	< 0.035	U	< 0.930	U	< 0.067	U	<0.680	U	< 0.034	U	<0.048	U	< 0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1232	NA	<0.035	U	< 0.930	U	< 0.067	U	<0.680	U	<0.034	U	<0.048	U	<0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1242	NA	< 0.035	U	< 0.930	U	< 0.067	U	<0.680	U	<0.034	U	<0.048	U	< 0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1248	NA	<0.035	U	< 0.930	U	< 0.067	U	<0.680	U	<0.034	U	<0.048	U	<0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1254	NA	<0.035	U	< 0.930	U	< 0.067	U	<0.680	U	< 0.034	U	<0.048	U	<0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1260	NA	<0.035	U	< 0.930	U	<0.067	U	<0.680	U	<0.034	U	<0.048	U	<0.034	U	< 0.061	U	<0.034	U	<1.000	U
Aroclor 1262	NA	**	U	**	U	**	U	**	U	< 0.034	U	<0.048	U	<0.034	U	< 0.061	U	**	U	**	U
Aroclor 1268	NA	**	U	**	U	**	U	**	U	<0.034	U	<0.048	U	< 0.034	U	0.860		**	U	**	U
Total PCBs	2	0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.860	3	0.000		0.000	



Table 3
United Airlines, Inc.
Soil Analytical Results Summary - PCBs

Parameter	NJDEP NRDCSCC	\$11 3 ft bg	s	S11D 10 ft bgs		S12 3 ft bg:	S	S12D 10 ft bg	IS	\$13 3 ft bg	s	S13D 10 ft bg	S	\$14 3 ft bg	S	\$14D 10 ft bg	s	\$15 3 ft bg	s	\$15D 10 ft bgs	5
Aroclor 1016	NA	< 0.034	U	<0.890 l	ال	< 0.034	U	<0.044	U	< 0.034	U	< 0.046	U	<0.034	U	< 0.052	U	<0.046	U	< 0.041	U
Aroclor 1221	NA	< 0.034	U	<0.890 \	ال	< 0.034	U	<0.044	U	< 0.034	U	<0.046	U	< 0.034	U	< 0.052	U	<0.046	U	< 0.041	U
Aroclor 1232	NA	< 0.034	U	<0.890 (ار	< 0.034	U	<0.044	U	<0.034	U	<0.046	U	< 0.034	U	<0.052	U	<0.046	U	< 0.041	U
Aroclor 1242	NA	<0.034	U	<0.890	J	< 0.034	U	<0.044	U	<0.034	U	< 0.046	U	< 0.034	U	< 0.052	U	<0.046	U	< 0.041	U
Aroclor 1248	NA	< 0.034	U	<0.890	J	< 0.034	U	<0.044	U	< 0.034	U	< 0.046	U	<0.034	U	< 0.052	U	<0.046	U	< 0.041	U
Aroclor 1254	NA	<0.034	U	<0.890	J	< 0.034	U	<0.044	U	<0.034	U	<0.046	U	< 0.034	U	< 0.052	U	<0.046	U	< 0.041	U
Aroclor 1260	NA	< 0.034	U	<0.890	J	< 0.034	U	<0.044	U	< 0.034	U	< 0.046	U	<0.034	U	< 0.052	U	<0.046	U	< 0.041	U
Aroclor 1262	NA	**	U	** (U	**	U	<0.044	U	**	U	**	U	**	U	<0.052	U	**	U	**	U
Aroclor 1268	NA	**	U	**	U	**	U	<0.044	U	**	U	**	U	**	U	<0.052	U	**	U	**	U
Total PCBs	2	0.000	-	0.000		0.000	Total and a second	0.000		0.000		0.000		0.000		0.000		0.000		0.000	

Parameter	NJDEP NRDCSCC	S16 3 ft bgs	5	S16D 10 ft bgs	3	\$17 3 ft bgs	S	S17D 10 ft bg	S	\$18 3 ft bg	s	\$18D 10 ft bg	S	S19 3 ft bgs	S	S19D 10 ft bg	S	\$20 3 ft bg	s	S20D 10 ft bgs
Aroclor 1016	NA	<0.044	U	<1.500	U	< 0.035	U	<1.000	U		U	<3.600	U	< 0.036	U	<0.850	U	< 0.037	U	<0.052
Aroclor 1221	NA	<0.044	U	<1.500	U	<0.035	U	<1.000	U	<0.360	U	<3.600	U	< 0.036	U	<0.850	U	< 0.037	U	<0.052
Aroclor 1232	NA	<0.044	U	<1.500	U	< 0.035	U	<1.000	U	< 0.360	U	<3.600	U	< 0.036	U	< 0.850	U	< 0.037	U	< 0.052
Aroclor 1242	NA	< 0.044	U	<1.500	U	< 0.035	U	<1.000	U	3.100		33.000		< 0.036	U	<0.850	U	<0.037	U	< 0.052
Aroclor 1248	NA	<0.044	U	<1.500	U	< 0.035	U	<1.000	U	<0.360	U	<3.600	U	< 0.036	U	< 0.850	U	<0.037	U	<0.052
Aroclor 1254	NA	<0.044	U	<1.500	U	<0.035	U	<1.000	U	< 0.360	U	<3.600	U	<0.036	U	<0.850	U	<0.037	U	< 0.052
Aroclor 1260	NA	<0.044	U	<1.500	U	< 0.035	U	<1.000	U	<0.360	U	<3.600	U	<0.036	U	< 0.850	U	< 0.037	U	< 0.052
Aroclor 1262	NA	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**	U	**
Aroclor 1268	NA	**	U	**	U	**	U	**	U	水水	U	**	U	**	U	**	U	**	U	**
Total PCBs	2	0.000		0.000		0.000		0.000		3.100		33.000		0.000		0.000		0.000		0.000

Notes:

All results in mg/kg (ppm) unless noted.



Table 3

United Airlines, Inc. Soil Analytical Results Summary - PCBs

Samples collected May 2005 NA = Not Available

D = Compound is identified at a secondary dilution factor.

 $\ensuremath{\mathsf{N}}$ = presumptive evidence of a compound, only applicable to TICs.

<### U = Non-Detectable above the method detection limit</pre>

** = No indication of possible detection in original lab analyses. Aroclor 1262 and 1268 were only run on samples where original lab results indicated possible presence of these compounds.



<u>Table 4</u>

<u>United Airlines, Inc.</u>

<u>Soil Analytical Results Summary - VOCs</u>

	NJDEP	NJDEP	NJDEP	S11	S11D	S13	S13D	S14	S14D	S18	S18D
Parameter	RDCSCC*	NRDCSCC**	IGWSCC***	3 ft bgs	10 ft bgs						
Dichlorodifluoromethane	NA	NA	NA	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Chloromethane	520,000	1,000,000	10,000	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Vinyl Chloride	NA	NA	NA	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Bromomethane	79,000	1,000,000	1,000	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Chloroethane	NA	NA	NA	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Trichlorofluoromethane	NA	NA	NA	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
1,1-Dichloroethene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Acetone	1,000,000	1,000,000	100,000	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Carbon Disulfide	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Methylene Chloride	49,000	210,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
trans-1,2-Dichloroethene	1,000,000	1,000,000	50,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
MTBE	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,1-Dichloroethane	570,000	1,000,000	10,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
2,2-Dichloropropane	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
cis-1,2-Dichloroethene	79,000	1,000,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
2-Butanone	1,000,000	1,000,000	50,000	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Bromochloromethane	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Chloroform	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,1,1-Trichloroethane	210,000	1,000,000	50,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Carbon Tetrachloride	2,000	4,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,1-Dichloropropene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Benzene	3,000	13,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2-Dichloroethane	6,000	24,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Trichloroethene	23,000	54,000	1,000	<250 U	360	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2-Dichloropropane	10,000	43,000	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Dibromomethane	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Bromodichloromethane	11,000	46,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
cis 1,3-Dichloropropene	4,000	5,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
4-Methyl-2-pentanone	1,000,000	1,000,000	50,000	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U
Toluene	1,000,000	1,000,000	500,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
trans 1,3-Dichloropropene	4,000	5,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,1,2-Trichloroethane	22,000	420,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Tetrachloroethene	4,000	6,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,3-Dichloropropane	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
2-Hexanone	NA	NA	NA	<510 U	<670 U	<510 U	<680 U	<510 U	<970 U	<530 U	<580 U

Table 4
United Airlines, Inc.
Soil Analytical Results Summary - VOCs

	NJDEP	NJDEP	NJDEP	S11	S11D	S13	S13D	S14	S14D	\$18	S18D
Parameter	RDCSCC*	NRDCSCC**	IGWSCC***	3 ft bgs	10 ft bgs						
Dibromochloromethane	110,000	1,000,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1.2-Dibromoethane	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Chlorobenzene	37,000	680,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,1,2,2-Tetrachloroethane	170,000	310,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Ethylbenzene	1,000,000	1,000,000	100,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
m/p-Xylene	410,000	1,000,000	67,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
o-Xylene	410,000	1,000,000	67,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Styrene	23,000	97,000	100,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Bromoform	86,000	370,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Isopropylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	140 J
Bromobenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,1,2,2-Tetrachloroethane	34,000	70,000	1,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2,3-Trichloropropane	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
n-Propylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
trans-1,4-Dichloro-2-butene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
2-Chlorotoluene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
4-Chlorotoluene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,3,5-Trimethylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	140 J
tert-Butylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2,4-Trimethylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
sec-Butylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	1,600
1,3-Dichlorobenzene	5,100,000	10,000,000	50,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
4-Isopropyltoluene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,4-Dichlorobenzene	570,000	1,000,000	10,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2-Dichlorobenzene	5,100,000	10,000,000	50,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
n-Butylbenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	3,100
Hexachloroethane	6,000	100,000	100,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,3-Dibromo-3-chloropropane	e NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2,4-Trichlorobenzene	68,000	1,200,000	100,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Hexachlorobutadiene	1,000	21,000	100,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Naphthalene	230,000	4,200,000	100,000	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
1,2,3-Trichlorobenzene	NA	NA	NA	<250 U	<330 U	<250 U	<340 U	<260 U	<490 U	<270 U	<290 U
Total VOCs	NA	1,000,000	NA	0	360	0	0	0	0	0	4,980

Notes:

Table 4

United Airlines, Inc. Soil Analytical Results Summary - VOCs

EXILE RELEASE	NJDEP	NJDEP	NJDEP	S11	S11D	S13	S13D	S14	S14D	S18	S18D
Parameter	RDCSCC*	NRDCSCC**	IGWSCC***	3 ft bgs	10 ft bgs						

All results in ug/kg (ppb) unless otherwise indicated.

NA = Not Available

J = Estimated value

B = Analyte is found in associated blank as well as in the sample

E = Compound whose concentrations exceeded the calibration range of the GC/MS for that specific analysis. The sample was diluted and re-analyzed.

D = Compound is identified at a secondary dilution factor.

<### U = Compound was analyzed for but not detected. The ## represents the sample quantitation limit (This is similar to the U flag).</p>

*RDCSCC = NJDEP Residential Direct Contact Soil Cleanup Criteria

** NRDCSCC = NJDEP Non-Residential Direct Contact Soil Cleanup Criteria

*** IGWSCC = NJDEP Impact to Groundwater Soil Cleanup Criteria

Table 5
United Airlines, Inc.
Soil Analytical Results Summary - SVOCs

5.000 (5.00	NJDEP	NJDEP	NJDEP	S11	\$11D	813	S13D	S14	S14D	S18	S18D
Parameter	RDCSCC*	NRDCSCC**	IGWSCC***	3 ft bgs	10 ft bgs	3 ft bgs	10 ft bgs	3 ft bgs	10 ft bgs	3 ft bgs	10 ft bgs
N-nitrosodimethylamine	NA	NA	NA	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<340 U	<750 U
Phenol	10,000,000	10,000,000	50,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<340 U	<750 U
bis(2-Chloroethyl)ether	660	3,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<340 U	<750 U
2-Chlorophenol	280,000	5,200,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
1,3-Dichlorobenzene	5,100,000	10,000,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
1,4-Dichlorobenzene	570,000	10,000,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
1,2-Dichlorobenzene	5,100,000	10,000,000	50,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
bis(2-Chlroisopropyl)ether	2,300,000	10,000,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
N-Nitroso-Di-n-propylamine	660	660	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
Hexachloroethane	6,000	100,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
Nitrobenzene	28,000	520,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
Isophorone	1,100,000	10,000,000	50,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
2-Nitrophenol	NA	NA	NA	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
2,4-Dimethylphenol	1,100,000	10,000,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
bis(2-Chloroethoxy)methane	NA	NA	NA	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
2,4-Dichlorophenol	170,000	3,100,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
1,2,4-Trichlorobenzene	68,000	1,200,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
Naphthalene	230,000	4,200,000	100,000	<340 U	450 J	<340 U	390 J	<340 L	<2,600 U	<710 U	<750 U
Hexachlorobutadiene	1,000	21,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 L	<2,600 U	<710 U	<750 U
4-Chloro-3-methylphenol	10,000,000	10,000,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 L	<2,600 U	<710 U	<750 U
Hexachlorocyclopentadiene	400,000	7,300,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 L	/<2,600 U	<710 U	<750 U
2,4,6-Trichlorophenol	62,000	270,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
2-Chloronaphthalene	NA	NA	NA	<340 U	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
Dimethylphthalate	10,000,000	10,000,000	50,000	<340 U	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
Acenaphthene	3,400,000	10,000,000	100,000	<340 U	<890 U	<340 U	700 J	<340 L	J <2,600 U	<710 U	<750 U
2,4-Dinitrophenol	110,000	2,100,000	10,000	<840 U	<2200 U	<840 U	<2,300 U	<850 L	J <6,500 U	<1,800 U	<1,900 U
4-Nitrophenol	NA	NA	NA	<840 U	<2200 U	<840 U	<2,300 U	<850 L	J <6,500 U	<1,80(U	<1,900 U
2,4-Dinitrotoluene	1,000	4,000	10,000	<340 U	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
Diethylphthalate	10,000,000	10,000,000	50,000	<340 L	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
Fluorene	2,300,000	10,000,000	100,000	<340 L	<890 U	<340 U	1,600	<340 L	J <2,600 U	<710 U	<750 U
4-Chlorophenyl-phenylether	NA	NA	NA	<340 L	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
4,6-Dinitro-2-methylphenol	NA	NA	NA	<840 L	<2200 U	<840 U	<2,300 U	<850 L	J <6,500 U	<1,80(U	<1,900 U
N-Nitrosodiphenylamine	140,000	600,000	100,000	<340 L	<890 U	<340 U	<910 U	<340 L	J <2,600 U	<710 U	<750 U
1,2-diphenylhydrazine (as zo)	NA	NA ·	NA	<340 L	<890 U	<340 U	<910 U	<340 l	J <2,600 U	<710 U	<750 U
4-Bromophenyl-phenylether	NA	NA	NA	<340 L	<890 U	<340 U	<910 U	<340 l	J <2,600 U	<710 U	<750 U

Table 5
United Airlines, Inc.
Soil Analytical Results Summary - SVOCs

	NJDEP	NJDEP	NJDEP	S11	S11D	\$13	-\$13D-	S14	S14D	S18	S18D
Parameter	RDCSCC*	NRDCSCC**	IGWSCC***	3 ft bgs	10 ft bgs						
Hexachlorobenzene	660	2,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<750 U
Pentachlorophenol	6,000	24,000	100,000	<840 U	<2200 U	<840 U	<2200 U	<850 U	<6,500 U	<1,80(U	<1,900 U
Phenanthrene	NA	NA	NA	<340 U	<890 U	<340 U	9,000	<340 U	<2,600 U	<710 U	1,000
Anthracene	10,000,000	10,000,000	100,000	<340 U	<890 U	<340 U	1,900	<340 U	<2,600 U	<710 U	<750 U
Di-n-butylphthalate	5,700,000	10,000,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	430 J
Fluoranthene	2,300,000	10,000,000	100,000	<340 U	360 J	<340 U	9,000	<340 U	1,300 J	<710 U	1,000
Benzidine	NA	NA	NA	<1,700 U	<4,500 U	<1,700 U	<4,600 U	<1,700 U	<13,000 U	<3,60(U	<3,800 U
Pyrene	1,700,000	10,000,000	100,000	<340 U	400 J	<340 U	6,400	<340 U	1,200	<710 U	780
Butylbenzylphthalate	1,100,000	10,000,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	<340 U
Benzo[a]anthracene	900	4,000	500,000	<340 U	310 J	<340 U	3,400	<340 U	<2,600 U	<710 U	300 J
3,3'-Dichlorobenzidine	2,000	6,000	100,000	<670 U	<1,800 U	<670 U	<1,800 U	<680 U	<5,200 U	<1,40(U	<1,500 U
Chrysene	9,000	40,000	500,000	<340 U	360 J	<340 U	3,400	<340 U	<2,600 U	<710 U	320 J
bis(2-Ethylhexyl)phthalate	49,000	210,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	1,700
Di-n-octylphthalate	1,100,000	10,000,000	100,000	<340 U	<890 U	<340 U	<910 U	<340 U	<2,600 U	<710 U	610 J
Benzo[b]fluoranthene	900	4,000	50,000	<340 U	460 J	<340 U	3,100	<340 U	970	<710 U	270 J
Benzo[k]fluoranthene	900	4,000	500,000	<340 U	<890 U	<340 U	1,200	<340 U	<2,600 U	<710 U	<750 U
Benzo[a]pyrene	660	660	100,000	<340 U	340 J	<340 U	2,900	<340 L	<2,600 U	<710 U	<750 U
Indeno[1,2,3-cd]pyrene	900	4,000	500,000	<340 U	320 J	<340 U	1,900	<340 L	<2,600 U	<710 U	<750 U
Dibenz[a,h]anthracene	660	660	100,000	<340 U	<890 U	<340 U	<910 U	<340 L	<2,600 U	<710 U	<750 U
Benzo[g,h,i]perylene	NA	NA	NA	<340 U	350 J	<340 U	1,600	<340 L	<2,600 U	<710 U	<750 U
Total SVOCs	10,000,000	10,000,000	10,000,000	0	3,350	0	46,490	0	3,470	0	6,410

Notes:

All results in ug/kg (ppb) unless otherwise indicated.

NA = Not Available

J = Estimated value

B = Analyte is found in associated blank as well as in the sample

E = Compound whose concentrations exceeded the calibration range of the GC/MS for that specific analysis. The sample was diluted and re-analyzed.

D = Compound is identified at a secondary dilution factor.

<### U = Compound was analyzed for but not detected. The ## represents the sample quantitation limit (This is similar to the U flag).</p>

*RDCSCC = NJDEP Residential Direct Contact Soil Cleanup Criteria

** NRDCSCC = NJDEP Non-Residential Direct Contact Soil Cleanup Criteria

*** IGWSCC = NJDEP Impact to Groundwater Soil Cleanup Criteria

Table 6
United Airlines, Inc.
Groundwater Analytical Results Summary - PCBs

Parameter	NJDEP GW QC	MW-2A		MW-4		MW-15		MW-23		MW-24	
Aroclor 1016	NA	<0.48	U	<0.48	U	<0.48	U	<0.48	U	21	U
Aroclor 1221	NA	< 0.47	U	< 0.47	U	<0.47	U	< 0.47	U	21	U
Aroclor 1232	NA	< 0.39	U	21	U						
Aroclor 1242	NA	<0.14	U	< 0.14	U	<0.14	U	<0.14	U	21	U
Aroclor 1248	NA	< 0.21	U	<0.21	U	<0.21	U	<0.21	U	21	U
Aroclor 1254	NA	<0.16	U	<0.16	U	<0.16	U	<0.16	U	21	U
Aroclor 1260	NA	<0.45	U	<0.45	U	<0.45	U	<0.45	U	21	U
Total PCBs	0.00	0.000		0.000		0.000		0.000		0.000	

Notes:

All results in ug/l (ppm) unless noted.

Samples collected May 2005

NA = Not Available

D = Compound is identified at a secondary dilution factor.

N = presumptive evidence of a compound, only applicable to TICs.

U = Non-Detectable above the method detection limit

GW QC = NJDEP Groundwater Qualirt Criteria



APPENDIX A SOIL BORING LOGS



LAND, AIR, WATER ENVIRONMENTAL SERVICES, INC.

RECEIVED MAY 0 4 2005



32 CHICHESTER AVE. PO BOX 372 CENTER MORICHES, NY 11934

(631) 874-2112 FAX (631) 874-4547

GEOPROBE LOGS

United Airlines Hanger 14 42-73 Brewster Rd. Newark, NY

April through May 2005

BORING#: S-5

Page# 1 of 1

DATE: April 29, 2005

SITE:

United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

DRILLI	ER:		E. Santia	igo	HELPER: K. McGourty
FI	DEPTI FROM		0	RECOVERY	SAMPLE DESCRIPTION
0	ft	1	ft		3" Asphalt and concrete core
1	ft	5	ft	41 inches	4" Dark grey/grey sand fill, fine
5	ft	10	ft	56 inches	Grey/brown/black sand/glass/metal/fill, fine, wet at tip



BORING#: S-6

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

Page# 1 of 1

DRILLE	ORILLER:		E. San	ntiago	HELPER:	K. McGourty
FR	DEF FROM		0	RECOVERY		SAMPLE DESCRIPTION
0	ft	1	ft			Concrete core
1	ft	5	ft	39 inches		7" Dark grey/grey sand fill, fine
5	ft	10	ft	49 inches	Grey/bla	ack sand/fill/glass/plastic, fine, wet at tip



BORING#: S-7

Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

DRILLE	ER:		E. Sa	antiago	HELPER: K. McGourty
FF	DEPT FROM		0	RECOVERY	SAMPLE DESCRIPTION
0	ft	1	ft		Concrete core
1	ft	5	ft	35 inches	5" Dark grey/grey sand/fill, fine
5	ft	10	ft	55 inches	Grey/brown/black sand/wood/glass/metal, fine, wet at tip



BORING#: S-8 Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14 CONSULTANT: APEX Environmental, Inc.

Newark, NJ Patchogue, NY

DEPTH DRILLED: 10 feet DEPTH TO WATER: 10 feet

DI	RILLE	ER:		E. Sar	ntiago	HELPER:	K. McGourty
	DEP FROM		PTH T	0	RECOVERY		SAMPLE DESCRIPTION
	0	ft	1	ft			Concrete core
	1	ft	5	ft	46 inches		3" Dark grey/grey sand, fine
	5	ft	10	ft	53 inches	Grey/brown/	black sand/fill/wood/glass/metal, fine, wet at tip



BORING#: S-9 Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14 CONSULTANT: APEX Environmental, Inc.

Newark, NJ Patchogue, NY

DEPTH DRILLED: 10 feet DEPTH TO WATER: 10 feet

DRILLI	ER:		E. Sa	ntiago	HELPER:	K. McGourty
DEP FROM			0	RECOVERY		SAMPLE DESCRIPTION
0	ft	1	ft			Concrete core
1	ft	5	ft	40 inches		5" Dark grey/grey sand/fill, fine
5	ft	10	ft	56 inches	Grey/bl	ack sand/wood/metal/fill, fine, wet at tip



BORING#: S-10

Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

DRILLI	ER:	wor volume and	E. Sa	ntiago	HELPER:	K. McGourty
FF	DE FROM		0	RECOVERY		SAMPLE DESCRIPTION
0	ft	1	ft			Concrete core
1	ft	5	ft	39 inches		4" Dark grey/grey sand/fill, fine
5	ft	10	ft	56 inches	Grey	//black sand/wood/metal/fill, fine, wet



BORING#: S-11

Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

SAMPLING METHOD:

5' Macro

DRILLER:		E. San	ntiago	HELPER:	K. McGourty
FROM	EPTH 1 T	0	RECOVERY		SAMPLE DESCRIPTION
0 f	1	ft			Concrete core
1 f	5	ft	37 inches		6" Dark grey/grey sand fill, fine
5 f	10	ft	50 inches	Grey/browr	n/black sand//wood/glass/metal/fill, fine, wet



BORING#: S-12

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

Page# 1 of 1

DRILLI	DRILLER:		E. Sa	intiago	HELPER: K. McGourty
FF	DEF FROM		0	RECOVERY	SAMPLE DESCRIPTION
0	ft	1	ft		Concrete core
1	ft	5	ft	38 inches	3" Dark grey/grey sand fill, fine
5	ft	10	ft	49 inches	Grey/black sand/fill/glass/wood, fine, wet at tip



BORING#: S-13

Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

DRILLE	ORILLER:		E. Sa	intiago	HELPER: K. McGourty
FRO		PTH T(O RECOVERY		SAMPLE DESCRIPTION
0	ft	1	ft		Concrete core
1	ft	5	ft	44 inches	Dark grey/grey sand/fill, fine
5	ft	10	ft	55 inches	Grey sand/wood/fill, fine, wet at tip



BORING#: S-14

Page# 1 of 1

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

DEPTH DRILLED:

10 feet

DEPTH TO WATER:

10 feet

-	DRILLE	ER:		E. Sa	ntiago	HELPER: K. McGourty
	FF	DEI FROM		0	RECOVERY	SAMPLE DESCRIPTION
	0	ft	1	ft		Concrete core
	1	ft	5	ft	40 inches	4" Dark grey/grey sand, fine
	5	ft	10	ft	58 inches	Grey/black sand/fill/wood/glass, fine, wet at tip



BORING#: SW-16

April 29, 2005 DATE:

United Airlines Hanger 14 Newark, NJ SITE

10 feet DEPTH DRILLED:

SAMPLING METHOD:

5' Macro

CONSULTANT: APEX Environmental, Inc.

Page# 1 of 1

Patchogue, NY

DEPTH TO WATER:

feet 10

HELPER: K. McGourty	MOITGIRGOSTO A IDMAS	Concrete core	Dark grey/grey sand/glass/wood/fill, fine	Grey/black sand/wood/glass/fill, fine, wet at tip
E. Santiago	RECOVERY		42 inches	43 inches
E. Sa	0	ft	Ħ	#
	DEPTH M TO	-	5	10
LER	ROM	ft	¥	Ħ
DRILL	EL.	0	-	5



BORING#: SW-17

DATE: April 29, 2005

SITE: United Airlines Hanger 14

Newark, NJ

DEPTH DRILLED: 10 feet

SAMPLING METHOD: 5' Macro

CONSULTANT: APEX Environmental, Inc.

Page# 1 of 1

Patchogue, NY

DEPTH TO WATER:

9.5 feet

K. McGourty	SAMPLE DESCRIPTION	14" Asphalt Core	12" Dark gre/grey sand/fill, fine	Grey/black and/glass/metal/fill, fine, wet
HELPER				Ö
Santiago	RECOVERY		37 inches	40 inches
E. Sa	0	ft	ft	Ħ
	DEPTH M T	-	5	10
DRILLER	DE FROM	0 #	T #	5 ft.



BORING#: SW-18

April 29, 2005 DATE:

United Airlines Hanger 14 Newark, NJ SITE

10 DEPTH DRILLED:

5' Macro SAMPLING METHOD:

CONSULTANT: APEX Environmental, Inc. Patchogue, NY

Page# 1 of 1

DEPTH TO WATER:

feet 10



Page# 1 of 1

BORING#: SW-19

April 29, 2005 DATE:

United Airlines Hanger 14 Newark, NJ SITE

feet 15 DEPTH DRILLED:

Patchogue, NY

CONSULTANT: APEX Environmental, Inc.

feet

10

DEPTH TO WATER: 5' Macro & SP15 Water Sampler SAMPLING METHOD:

DE TROW	РТН ТС 1 5	E. San	RECOVERY 37 inches	HELPER:	K. McGourty SAMPLE DESCRIPTION Asphalt Dark grey/grey sand/fill, fine
	10	#	46 inches	Gre	Grey/red sand/glass/wood/fill, fine, wet
#	15	#		No soil s	No soil sample, water sample attempted but not collected



BORING#: S-1

Page# 1 of 1

May 2, 2005 DATE

United Airlines Hanger 14 SITE:

Newark, NJ

10 feet DEPTH DRILLED:

5' Macro SAMPLING METHOD:

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

9.5 DEPTH TO WATER:

feet

				et	
K. McGourty		SAMPI F DESCRIPTION	Concrete Sidewalk	Tan sand brick fill, fine, wet	Tan sand, fine, wet, (SM)
HELPER:					
		RECOVERY		48 inches	38 inches
E. Santiago					
Щ		0	ŗ	Ħ	ŧ
	DEPTH	_	9	5	10
ER		SOM	ff	in	¥
DRILL		FR	0	9	5



BORING#: S-2

Page# 1 of 1

May 2, 2005 DATE

United Airlines Hanger 14 SITE:

Newark, NJ

10 feet DEPTH DRILLED:

5' Macro

SAMPLING METHOD:

DEPTH TO WATER:

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

feet 10

> HEI DED DRII I FR

באורב	צ		E. San	antiago	HELPER: K. McGourty
£		PTH T(Ç	RECOVERY	SAMPLEDESCOPE
0	¥	-	ft		Concrete Core
-	¥	5	ш	44 inches	1" Dark grey/grey sand fill, fine
5	#	10	Ħ	50 inches	25" Grey/brown/black sand/wood/metal/fill, fine, wet



BORING#: S-3

Page# 1 of 1

DATE: May 2, 2005 SITE: United Airlines Hanger 14

Newark, NJ

10 feet DEPTH DRILLED:

5' Macro SAMPLING METHOD:

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

feet 10

DEPTH TO WATER:

DRILLER	άż		E. Sar	antiago		HELPER:	K. McGourty
FR	DE	PTH TC	O		RECOVERY		SAMPLE DESCRIPTION
0	#	-	#				Concrete Core
-	#	5	¥		43 inches		2" Dark grey/grey sand fill, fine
2	#	10	⊭		55 inches	Grey/redis	Grey/redish brown/black sand/wood/fill, fine, wet



BORING#: S-4

Page# 1 of 1

DATE:

May 2, 2005 United Airlines Hanger 14 SITE:

Newark, NJ

10 feet

5' Macro SAMPLING METHOD: DEPTH DRILLED:

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

feet 10

DEPTH TO WATER:

LEI DED Ц DRII FR

HELPER: K. McGourty	SAMPLE DESCRIPTION	Concrete Core	5" dark grey/grey sand/fill, fine	42" Grey/15" red/1" black sand/wood/glass/fill, fine, wet at tip
ntiago	RECOVERY		28 inches	58 inches
E. San		Ħ	¥	¥
	ЭЕРТН М TC	ft 1.5	5	10
2	OE	ft	#	#
DRILLER	ii.	0	1.5	2



BORING#: S-15

Page# 1 of 1

DATE

May 2, 2005 United Airlines Hanger 14 SITE

Newark, NJ

10 feet DEPTH DRILLED:

5' Macro SAMPLING METHOD:

CONSULTANT: APEX Environmental, Inc.

Patchogue, NY

10 DEPTH TO WATER:

feet

DRILLER		E. San	antiago	HELPER	K. McGourty
E FROM	DEPTH	T 0	RECOVERY		SAMPLE DESCRIPTION
) 0	ft 1	⊭			Asphalt Core
4-	ft 5	#	40 inches		2" Dark grey/grey sand/fill, fine
5 ft	ft 10	Ħ	42 inches	20" Grey/b	20" Grey/black sand/wood/carpet/fill, fine, wet at tip



BORING#: SW-20

Page# 1 of 1

DATE:

May 2, 2005 United Airlines Hanger 14 SITE:

Newark, NJ

feet 9 DEPTH DRILLED:

CONSULTANT: APEX Environmental, Inc. Patchogue, NY

DEPTH TO WATER:

feet 10

> 5' Macro & SP 15 Water Sample SAMPLING METHOD:

HELPER: K. McGourty		SAMPLE DESCRIPTION	Asphalt Core	4" Dark grey/10" grey to red sand/fill, fine	Red/grey/black sand/wood/glass/fill, fine, wet at tip	No soil sample, water sample attempted but not collected
E. Santiago		RECOVERY		42 inches	49 inches	
E. Sal			#	ŧ	Ħ	Ħ
	JEPTH	ř	-	2	10	15
LER	DE	NO.	#	#	Ħ	Ħ
DRILLI		II.	0	-	5	10





APPENDIX B MONITORING WELL SURVEY

Manage of Ourseast Dark Anthonities of Many Vaule 9 Many Instant
Location: Newark Liberty Interational Airport, Newark, New Jersey
Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
LAND SURVEYOR'S CERTIFICATION Well Permit Number:
(This number must be permanently affixed to the well casing.)
Owners Well Number (As shown on application or plans):
Geographic Coordinate NAD 83 (to nearest 1/10 of second):
Longitude: West 74°10'37.9" Latitude: North 40°42'18.7"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,960 East 581,620
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
NGS Cors Station, "NJI2", NAD '83 (Horizontal), NAVD' 88 (Vertical)
Significant observations and notes:
AUTHENTICATION
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.
PROFESSIONAL LAND SURVEYOR'S SIGNATURE DATE
Charles E. Szovati, New Jersey License No. GS-35887 PROFESSIONAL LAND SURVEYOR'S NAME AND LICENSE NUMBER (Please print or type)
c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983

Name of Owner: Port Authority of New York & New Jersey
Location: Newark – Liberty Interational Airport, Newark, New Jersey
Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
LAND SURVEYOR'S CERTIFICATION Well Permit Number:
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Geographic Coordinate NAD 83 (to nearest 1/10 of second):
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New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,930 East 581,600
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983

Name of Owner: Port Authority of New York & New Jersey Name of Facility: United Airlines Hangar 14 Location: Newark – Liberty Interational Airport, Newark New Jersey	Case Number(s): (UST #, ISRA #, Incident #, or EPA #)	LAND SURVEYOR'S CERTIFICATION Well Permit Number:	(This number must be permanently affixed to the well casing.)	Owners Well Number (As shown on application or plans):	Geographic Coordinate NAD 83 (to nearest 1/10 of second):	Longitude: West 74°10'39.0" Latitude: North 40°42'15.2"	New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:	North 681,610 East 581,540	Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):	Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)	NGS Cors Station, "NJI2", NAD '83 (Horizontal), NAVD' 88 (Vertical)	Significant observations and notes:		AUTHENTICATION	I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.	Med 2 Sayats PROFESSIONAL LAND SURVEYOR'S SIGNATURE DATE	Charles E. Szovati, New Jersey License No. GS-35887 PROFESSIONAL LAND SURVEYOR'S NAME AND LICENSE NUMBER (Please print or type)	c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983
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datum is

Name of Owner: Port Authority of New York & New Jersey
Location: Newark - Liberty Interational Airport, Newark, New Jersey
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New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,610 East 581,600
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c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983

Name of Owner: Port Authority of New York & New Jersey	Name of Facility: United Airlines Hangar 14	Case Number(s): (UST #, ISRA #, Incident #, or EPA #)	LAND SURVEYOR'S CERTIFICATION Well Permit Number:	(This number must be permanently affixed to the well casing.)	Owners Well Number (As shown on application or plans):	Geographic Coordinate NAD 83 (to nearest 1/10 of second):	Longitude: West 74°10'37.9" Latitude: North 40°42'14.5"	New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:	North 681,540 East 581,620	Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):	Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)	NGS Cors Station, "NJI2", NAD '83 (Horizontal), NAVD' 88 (Vertical)	Significant observations and notes:		AUTHENTICATION	l certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.	Mole STATA 11/10/05 PROFESSIONAL LAND SURVEYOR'S SIGNATURE DATE	Charles E. Szovati, New Jersey License No. GS-35887 PROFESSIONAL LAND SURVEYOR'S NAME AND LICENSE NUMBER (Please print or type)	c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983
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Name of Owner: Port Authority of New York & New Jersey Name of Facility: <u>United Airlines Hangar 14</u> Location: <u>Newark – Liberty Interational Airport,</u> Newark, New Jersey
Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
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Owners Well Number (As shown on application or plans):
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Longitude: West 74°10'38.7" Latitude: North 40°42'17.8"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,870 East 581,590
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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Name of Facility: United Airlines Hangar 14
Location: Newark – Liberty Interational Airport, Newark, New Jersey
Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
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Longitude: West 74°10'37.7" Latitude: North 40°42'15.6"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,650 East 581,630
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983

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Name of Owner: Port Authority of New York & New Jersey Name of Facility: United Airlines Hangar 14 Location: Newark - Liberty Interational Airport, Newark, New Jersey
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Geographic Coordinate NAD 83 (to nearest 1/10 of second):
Longitude: West 74°10'36.7" Latitude: North 40°42'18.1"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,900 East 581,710
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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Longitude: West 74°10'40.7" Latitude: North 40°42'16.4"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,730 East 581,400
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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Name of Owner: Port Authority of New York & New Jersey
Name of Facility: United Airlines Hangar 14 Location: Newark - Liberty Interational Airport, New Jersey
Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
LAND SURVEYOR'S CERTIFICATION Well Permit Number:
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Geographic Coordinate NAD 83 (to nearest 1/10 of second):
Longitude: West 74°10'40.0" Latitude: North 40°42'17.4"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,830 East 581,460
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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Name of Owner: Port Authority of New York & New Jersey Name of Facility: United Airlines Hangar 14
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Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
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Geographic Coordinate NAD 83 (to nearest 1/10 of second):
Longitude: West 74°10'37.8" Latitude: North 40°42'18.6"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,950 East 581,620
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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c/o Millennium Surveying & Engineering, Inc. 199 North Woodbury Road Pitman, New Jersey 08071 PH: (856) 256-8983

datum is

MONITORING WELL CERTIFICATION FORM B - LOCATION CERTIFICATION

Name of Owner: Port Authority of New York & New Jersey Name of Facility: United Airlines Hangar 14
Location: Newark - Liberty Interational Airport, Newark, New Jersey
Case Number(s): (UST #, ISRA #, Incident #, or EPA #)
LAND SURVEYOR'S CERTIFICATION Well Permit Number:
(This number must be permanently affixed to the well casing.)
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Geographic Coordinate NAD 83 (to nearest 1/10 of second):
Longitude: West 74°10'39.9" Latitude: North 40°42'15.8"
New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:
North 681,670 East 581,460
Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):
Source of elevation datum (benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.)
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APPENDIX C

NJDEP LOW FLOW SAMPLING PROTOCOL

Low-Flow Purging and Sampling

A. Method Summary and Application

bottom of the well, thereby producing a sample with low turbidity. Second, LFPS minimizes aeration of the groundwater during sample collection. Third, the amount of groundwater purged from a well is accomplished by setting the intake velocity of the sampling pump to a flow rate that limits drawdown inside the well. LFPS has three primary benefits. First, it minimizes disturbance of sediment in the The purpose of Low-Flow Purging and Sampling (LFPS) is to collect groundwater samples from monitor wells that are representative of ambient groundwater conditions in the aquifer. This is usually reduced as compared to conventional groundwater purging and sampling methods.

samples for analysis of volatile and semi-volatile organic compounds (VOCs and SVOCs), provided Because the method allows collection of groundwater samples with low turbidity, it was originally analysis. In addition, since the method minimizes aeration of the samples, it can be used to collect used for collecting samples for inorganics analysis. The method typically allows the collection of samples for total metals analysis and eliminates the need to filter the samples for dissolved metals that appropriate pumps are used in sample collection, as discussed below.

Advantages of LFPS are:

- Groundwater samples tend to be more representative of actual aquifer conditions with respect to mobile contaminants and turbidity
- It causes minimal disturbance of the formation adjacent to the screened interval
- It is generally less prone to sampling variability compared to other groundwater sampling techniques (e.g., bailers)
 - Smaller purge volumes and associated disposal expense
- Increased sample consistency from dedicated systems and reproducibility of data due to reduced operator variability

Disadvantages of LFPS are:

- Misconceptions regarding reduced purging and sampling time
- Sampling from non-dedicated systems requires greater set-up time
- Sampling from dedicated systems requires higher initial capital expenses
 - Increased technical complexity
- Increased training needs for sampling personnel
- Attractiveness of advantages may lead to improper and inconsistent application
 - Typically not a "first round" sampling option
- Not recommended for wells with long screen intervals unless multiple samples are collected

Introduction

The following procedures are specific to LFPS of monitor wells in New Jersey. These procedures were developed in consideration of the USEPA-Region I guidance document dated July 30, 1996

documents prior to performing LFPS. The procedures provided in the USEPA and USGS guidance (http://www.epa.gov/region01/measure/well/lowflow8.pdf) and the USEPA-Region II guidance the U.S. Geological Survey's (USGS) Techniques of Water-Resources Investigations, Book 9, (http://water.usgs.gov/owq/FieldManual/). The reader is encouraged to review these guidance document dated March 16, 1998 (http://www.epa.gov/Region2/desa/hsw/lowflow.txt). must be followed except where they differ from the information provided below. National Field Manual for the Collection of Water-Quality Data was consulted

2. Low Flow Policy

responsible party seek approval for any deviations from this guidance prior to conducting LFPS. In the event that a responsible party decides to use LFPS without submitting a sampling plan and receiving oversight, submittal of a sampling plan is not required. However, it is highly recommended that the data. In addition, when submitting the results of the LFPS event, the responsible party must include guidance specified below. The responsible party shall also provide adequate rationale justifying any approval, it must be recognized that any deviations from this guidance may result in rejection of the specific details of the LFPS techniques used which demonstrate that they were consistent with the In the event that a responsible party is conducting a Remedial Investigation without Departmental deviations from this guidance whether or not they were previously approved by the Department.

open borehole intervals greater than 5 feet in length unless: 1) multiple locations at five-foot intervals It is also Departmental policy that LFPS is not an acceptable method for any wells with screened or along the screen/borehole are sampled, or 2) the data quality objectives (DQOs) warrant sampling a specific zone (e.g., the shallow water table to investigate the potential for vapor intrusion inside a temperature logs, etc.) and hydrogeological information (e.g., tracer tests) or other evidence (e.g., building) or specific zones where sufficient geophysical (e.g., heat-pulse flowmeter, caliper and stained soils or fractures noted on boring logs) that clearly identifies the depth(s) at which contaminants are entering the well screen or open borehole.

sampling of the well may require LFPS at fewer depth intervals, or even just one depth interval, depending on the data quality objectives of the sampling and the types of contamination present in the Once the collection of multiple samples (vertical profiling) in a well has been completed, long-term groundwater (e.g., LNAPL, DNAPL, etc).

3. Laboratory Certification (N.J.A.C. 7:18)

into the field and accompany all WQIP data submitted to the Department. (*Environmental laboratory is defined as any laboratory, facility, consulting firm, government or private agency, business entity or applies to those firms using LFPS instruments associated with the "analyze immediately" category of for certification can not be ignored. All certification documentation must accompany the instrument Regardless of whether or not the equipment in question is rented or privately owned the requirement other person that the Department has authorized, pursuant to N.J.A.C. 7:18, to perform analysis in water quality indicator parameters (WQIPs) including pH, temperature, and dissolved oxygen. Department, regardless of quality level, must be certified by the Office of Quality Assurance. N N.J.A.C. 7:18 requires that any environmental laboratory* submitting analytical data to the

accordance with the procedures of a given analytical method using a particular technique as set forth in a certain methods reference document and to report the results from the analysis of environmental samples in compliance with a Departmental regulatory program).

B. Specific LFPS Considerations

1. Pump Intake Location

place the pump intake in the zone of highest contaminant concentration or contaminant flux along the screened/open-hole interval. This is particularly important in wells constructed with more than 5 feet When LFPS is performed correctly, the data being collected should be a snapshot of a narrow zone along a length of well screen or fracture in an open borehole. For these reasons, it is important to of well screen.

soil/sediment contamination from boring logs; 2) soil/sediment sampling analytical results; 3) vertical Information to be considered when selecting the pump intake depth should include: 1) evidence of profiles of groundwater and soil contamination developed from direct-push sampling and fieldscreening techniques; and; 4) lithology/stratigraphy, particularly the permeability of the aquifer

identify the zone of highest VOC contamination. The physical/chemical behavior of the contaminants contaminant mass will be transported through them, particularly as the plume migrates downgradient of the source area. Identification of these zones may be made from borehole geophysical data, (e.g., grain-size analyses. The use of a series of passive-diffusion-bag samplers in a well may also help to of concern should be considered when determining the pump intake depth . For example, gasoline-Typically, the most permeable zones are selected for the pump intake location since the majority of deeper in the aquifer. If a well is contaminated by both types of contaminants, both may need to be resistivity, fluid conductance, or natural gamma logging, etc.) and hydraulic conductivity data or related contaminants may be present near the water table while chlorinated VOCs may be present sampled, each from a discrete sampling interval.

boreholes in fractured rock may be subject to significant vertical flow. Under those conditions, use of investigated. Monitor wells screened across zones of significant geologic heterogeneity or open As discussed above, LFPS is not an option in wells with screened intervals that exceed 5 feet in length, unless multiple sample locations at five-foot intervals along the screen/borehole are packers to isolate specific zones should be considered.

Water Quality Indicator Parameters (WQIPs)

anticipated "third" reading of any individual parameter does not fall within the stated range, then the For groundwater investigations in New Jersey utilizing LFPS, the following parameters must be respective measurements must fall within the stated range for three consecutive readings. If the process to achieve three consecutive readings for that parameter must be restarted. If, after four measured in order to determine when well stability has been achieved prior to sampling. Their

hours, stability has not been achieved for the parameters listed below, follow the recommendations

Water Level Drawdown < 0.3 ft* pH + 0.1 unit Specific Conductance + 3% I emperature + 3% Dissolved Oxygen + 10% Turbidity + 10% ORP/Eh + 10 milling	< 0.3 ft*	$\pm 0.1 \text{ unit}$	- ±3%	- ± 3%	- ± 10%	$ \pm 10\%$ for values greater than	NTO	± 10 milliyolts
0;0=0	evel Drawdown			ure	l Oxygen			

of the well should be avoided. Therefore, drawdown should not expose the screen more than 0.3 ft groundwater for VOCs and SVOCs, aerating the water by allowing it to cascade down the inside gasoline constituents at the water table, it is much more important to limit the drawdown to less than 0.3 ft, for example, than a well with 15 ft of screen being sampled for metals only with the * During pump start-up, drawdown may exceed the 0.3-ft target and then recover as flow-rate adjustments are made. In wells with short screens (i.e., 5 to 10 ft long) or when sampling for pump intake set in a permeable zone 5 ft or more below the water table. When sampling below the static water level in the well.

takes for purge water to replace one flow-through-cell volume (generally 250 ml) and the time it takes time required for purge water replacement will increase. Forms at the end of this document should be to measure and record the data. If the purge rate decreases or if the flow cell volume is increased, the Measurements should be taken once every 5 to 6 minutes. This interval is based upon the time it used to record drawdown and the WQIPs.

diameter, length, and material of construction; 2) flow-through cell design, capacity, decontamination, and "purge-train" set-up; 3) pump selection and plumbing fittings; 4) calibration of flow-through cell To insure consistency of the data, consideration of the following must be made: 1) tubing WQIP measurements must be collected in a manner that will insure integrity of the data being probes; 5) purge rate; and, 6) water-level-measurement technique.

3. Purge Volume vs. Stabilization Time

document the attempts to reach stabilization; or 3) discontinue purging, collect a sample and document stabilization occurs, no matter how long it takes; 2) discontinue purging, do not collect a sample and available if stability has not been achieved after FOUR hours of purging: 1) continue purging until In some cases, it may take considerable time to achieve stabilization of the WQIPs. In other cases, the attempts to reach stabilization. In situations where WQIPs do not stabilize, the sampler must they may never stabilize. However, as provided in USEPA guidance, the following options are document that LFPS could not be performed and document in the report how the samples were

useful information regarding the sampling method. For example, temperature increases resulting from While every effort should be taken to assure that all of the WQIPs stabilize prior to sample collection, one should keep in mind that the stabilization of some WQIPs may be more difficult to achieve than concentrations tend to increase with increasing turbidity of a water sample due to sorption of metals information on the effectiveness of LFPS, collection of accurate DO data also aids in the evaluation others. Also, achieving stabilization of some WQIPs may be more important with respect to some Similarly, VOC concentrations may be affected by dissolved oxygen (DO) of monitored natural attenuation (MNA) of VOC plumes. Similarly, temperature data can provide dissipation of heat generated by the submersible pump or from exposure of the tubing to excessive heat at the ground surface can have a significant impact on VOC concentrations in water samples. concentrations (i.e., whether the groundwater is aerobic or anaerobic). In addition to providing contaminant types (e.g., metals versus VOCs, etc.) than others. For example, total metals on solids in the water.

contaminant of concern, sample collection may still proceed. For example, if DO data do not stabilize If, for whatever reason, a WQIP is not accurately measured during the monitoring process or a certain should contact the Department's assigned case manager for the site, if any, either prior to (preferably) but all of the other WQIPs including drawdown and turbidity stabilize and samples will be collected for metals only, then the samples may be collected. However, any WQIPs that are affected by field conditions or instrument malfunction, must be discussed in the text of the report in order to alert the end-user of potential data bias. If questions arise regarding when stabilization occurs, the sampler WQIP does not stabilize, and that particular WQIP is not significant with respect to the type of or when performing LFPS.

4. Tubing

corresponding increase of pump speeds to maintain flow. Increased pump speed will, in turn, elevate water being sampled. Conversely, any reduction in flow velocity may allow air to become trapped in the tubing, which may ultimately affect air-sensitive parameters or allow particulates to settle, which Quarter-inch (1/4-in) tubing is preferred. Larger tubing diameters reduce flow velocity resulting in a the potential for turbulent flow across the screened interval and this may affect the quality of the The inside diameter (ID) of tubing should be no greater than three-eighths of an inch (3/8-in). may affect turbidity values.

temperature, direct sunlight, and bubble formation are kept to a minimum, and 2) deposited solids or Occurrence of any one or combination of these factors can cause variations in WQIP measurements, air bubbles will less likely be trapped in tubing bends and re-mobilized after accidental movement. shortest length manageable. Attention to this detail will help ensure that: 1) exposure to ambient which could increase stabilization time. Therefore, tubing must be completely full of water at all The length of tubing, from the top of the well casing to the flow-through chamber, should be the

proceed from the top location to the bottom location. This will require that additional tubing be coiled at the surface to allow for pump relocation to the next deeper sampling location. In these instances, If the sampling plan calls for multiple sample locations within the well screen, sampling should

the coiled tubing must be protected from ambient conditions and the ground surface, in order to avoid impact to the WQIPs and sample data.

The tubing's material of construction must be either Teflon® or Teflon®-lined polyethylene up to the when sampling for metals analysis only, the tubing may be constructed of flexible polypropylene or downstream of the flow cell may be constructed of a lower-quality, more flexible material. flow-through cell. This is consistent with collection of any groundwater sample. polyethylene.

each well. If a decision is made to reuse tubing, then one of the following requirements in the USGS solvents and acid, often exceeds the cost of simply discarding the old tubing and using new tubing for "Water-Quality National Field Manual" must be considered: 1) Collect additional field blanks if VOC pumped through the tubing for 15 minutes, followed by copious amounts of distilled, deionized water rinses. The cost of labor associated with decontamination, including the special handling of cleaning Tubing "reuse" is not recommended when sampling well-to-well since decontamination of tubing is difficult and time consuming. If tubing is to be reused, it must undergo a rigorous decontamination procedure, which must include a hot water wash/hot air drying process. In addition to the hot water ubing should be replaced, rather than cleaned, if VOC concentrations in the last sample exceed 700 concentrations in the last sample collected through the tubing are greater than 500 µg/L, or 2) The wash/hot air drying, separate decontamination solutions of acetone and nitric acid may have to be

5. Flow-Through Cell

shared features. Cells should be transparent in order to "see" the physical condition of the purge water Typical flow-through cell design is not complicated and almost all on the market today have common allow for purge water to enter the flow cell from a bottom port and exit at the top. The discharge may or air bubbles passing through the system. Highly turbid or iron bacteria-laden water can be visually The cell must be sealed against unwanted exposure to turnover rate of water coming into the cell to ensure real-time data integrity. The in-line design must the atmosphere, thus insuring accurate measurement of air-sensitive parameters (dissolved oxygen, pH, etc.). The total capacity of the cell must be small (<300 ml) in order to maintain a desirable monitored for change as the purge progresses. be fitted with a check valve.

prevent fowling of probes by bacteria, sediment, or NAPL. Once drawdown measurements indicate Upon initial pump startup, it is good practice to not connect the pump discharge line to the flowthrough cell. This will allow the sampler time to monitor drawdown, stabilize the flow rate and that the flow rate has been controlled and a few minutes (<10) have been allowed to clear any unwanted material, the pump discharge line can then be connected to the flow cell.

material may impact probe performance. If they are exposed to contaminants, use a mild detergent or Flow cell decontamination is important, not only to reduce the potential for cross contamination, but also to ensure data integrity and consistent instrument performance. The cell and probes should be laboratory glassware cleaning solution. Flow cell exposure to high levels of contamination may rinsed with distilled/deionized water between each monitor well as accumulation of suspended

round sampling option, knowledge of contaminant levels will generally be known prior to the cell's damage probes and require their repair by the manufacturer. Since LFPS is NOT normally a firstexposure to purge water.

The location of the flow cell or cells in relation to the sample port is critical. Samples for turbidity measurement, general chemistry and laboratory analysis must be collected ahead of the flow cell. When two cells are used in series, the dissolved oxygen probe must be located in the first cell.

order to minimize the length of tubing needed between the well head and flow-through cell. The flow-Set up the flow-through cell in a location which will cause minimal fluctuation of the flow rate due to collection. It is also important to locate the flow-through cell as close as possible to the well head in elevation changes in the sample tubing as the tubing is disconnected from the cell prior to sample through cell must be protected from ambient conditions and the ground surface.

6. Pump Selection

Pumps used for monitoring WQIPs must be submersible, positive-displacement pumps. Examples of acceptable positive-displacement pumps include bladder, variable-speed submersible-centrifugal, reciprocating-piston, progressive-cavity, and gear pumps. The pump discharge must be fitted appropriately to receive either 1/4- or 3/8-inch inside-diameter (ID) Teflon® or Teflon®-lined polyethylene tubing.

their use is not appropriate when collecting groundwater samples for analysis of organic compounds. inorganic compounds. It should be kept in mind, however, that sampling with peristaltic pumps may these WQIPs can be affected by the peristaltic pump, this pump should not be used when these data affect the stabilization of some WQIPs including dissolved oxygen, pH and redox potential. Since However, peristaltic pumps may be used for the collection of groundwater samples for analysis of Peristaltic pumps are suction-lift pumps which can create a negative pressure gradient. Therefore, are to be used to evaluate the effectiveness of Monitored Natural Attenuation of groundwater.

from the sample tubing. Power supply and sample tubing lines that form a single unit do not allow for installed pump system, or 2) a portable (well-to-well) pump installation. Bladder pumps can be used for either scenario, however, only those with disposable bladders and easily cleaned parts are suitable addition, when conducting LFPS on a portable basis, the power or gas supply line should be isolated clean stainless steel/Teflon® parts. Pumps constructed with impellers, helicoils, or gears, which are Two basic collection scenarios have a bearing on pump selection. These include: 1) a permanently progressive-cavity pumps can be used for either scenario as long as they are constructed of easy to difficult to clean or are constructed of unacceptable plastic parts, are not suitable for sampling. In when sampling on a well-to-well basis. Variable-speed submersible-centrifugal pumps, gear or easy decontamination and are not recommended.

7. Plumbing Fittings

accidental drainage and subsequent aeration of the flow cell. More importantly, a check valve will A check valve should be incorporated into the tubing train or flow cell discharge to eliminate

interval of the well may result in variability of the WQIPs and create analytical bias. In order to avoid the need to decontaminate the check valve, it may be placed on the discharge side of the flow cell or power source or pump experience mechanical failure. A back-surge of purge water into the screened prevent a back-surge of purged water being reintroduced at the screen interval of the well should the Some flow-through cells have check valves built into the unit. By design, bladder pumps also have a check valve built into their construction. installed immediately above the pump discharge.

A 1/4- or 3/8-inch ID barbed "T" or "Y" fitting, placed ahead of the flow cell, may be used to establish decontaminated between each use, if used for analytical samples. The fitting may be constructed of general chemistry parameters. If analytical samples are collected through the "T" or "Y" fitting and the line which will receive a needle valve for turbidity, general chemistry and analytical sample collection. The "T" or "Y" fitting used should be constructed of Teflon® or stainless steel and polyethylene and decontaminated between each use if it is only used to sample for turbidity and needle valve, then those parts must be incorporated into the field blank collection technique.

When collecting a sample at the port ahead of the flow cell, a flow control valve (stainless-steel needle and air bubbles from forming in the tubing (see http://water.usgs.gov/owq/FieldManual/chap4 rpt.pdf, page 84). The "needle valve" offers versatility as it can be used for collection of turbidity, general valve [preferred] or stainless steel/Teflon ball valve [optional]) must be used to prevent backpressure sample flow rate because the design significantly reduces any backpressure gradient. Like all other chemistry and analytical samples. It can be used with Teflon® tubing and can be used to control sampling equipment, the "needle valve" must be decontaminated before use at any well.

8. Calibration of Probes

QUALITY INDICATOR PARAMETERS MUST TAKE PLACE IN THE FIELD PRIOR TO THE DAY'S EVENTS. THE OFFICE OF QUALITY ASSURANCE MUST CERTIFY THE PROBES USED FOR DISSOLVED OXYGEN AND TEMPERATURE MEASUREMENT. CALIBRATION OF THE PROBES USED TO MONITOR

There are no exceptions to these rules. Probe calibration is critical to the accurate and precise measurement of WQIPs.

being measured as temperature correlation is critical in calculating conductivity, dissolved oxygen and temperature adjusted to 25°C at the time of calibration. For dissolved oxygen, the flow cell itself must conductivity requires compensation for groundwater temperature at the time of calibration vs. solution followed. Solutions for probe calibration must be held to the temperature of the liquid (groundwater) difference in temperature. The respective difference between calibration of conductivity and specific calibration solutions. Some instruments are designed with internal features to compensate for this pH. Tables and equations to compensate for the difference between ambient groundwater and For warranty purposes, all manufacturers' instructions for proper care and calibration must be calibration solution temperature are sometimes provided in the operating manuals or with the

proper temperature control of solutions during calibration must be reported to the end user. All steps must be recorded in the field notes. No sampling shall commence until all instruments are calibrated be maintained at the temperature of groundwater during calibration. All efforts made to account for and operating properly. See the "Tips" section below for further discussion on Temperature of Calibration Solutions.

Water Level Measurements

designation and/or to determine if silt has accumulated in the bottom of a well), it should be measured The depth to the top of the water column must be recorded prior to pump installation and/or prior to removed. Total depth measurements must never be taken immediately before purging as this may at least 48 hours prior to sample collection or after the sample has been collected and the pump purging. If the total depth of the well needs to be determined (e.g., to verify the correct well cause the re-suspension of solids in the well and prolong the purge time.

water-level probe in the well at the point at which drawdown is equivalent to a 0.3-foot drop. Record Once the initial water-level measurement has been recorded and the pump installed, suspend the water levels simultaneously with WQIP measurements once every five minutes.

Water-level-measurement devices, which may impart some disturbance to the water column (i.e., stainless steel "popper" or coated tape), are not acceptable.

10. Pump Installation

LFPS pump installation can be divided into two general collection scenarios: permanent and portable improved consistency in data acquisition and reduced long-term labor, preparation and material costs. However, permanent installation is more typically associated with long-term monitoring due to the (well-to-well). Permanent pump installation is the most desirable. Among other advantages are high initial capital investment required. The more common practice is to use a pump on a portable or well-to-well basis. While initial capital investment is comparatively less than that of a permanent installation, this practice requires close attention to quality control aspects of pump selection, preparation and decontamination.

However, this is not always practical, especially when site security can not be guaranteed. In addition, Once pumps have been properly decontaminated and fitted with appropriate tubing, installation of the wells constructed with flush-mount casing are difficult to protect from storm water or infiltration of pump can begin. Ideally, pumps should be installed 24 to 48 hours prior to initiation of purging. other contaminants during the extended period monitor wells are open.

absolute minimum. Once pumps reach the top of the water column, their descent should proceed very slowly through the water column. The actual level where the pump intake is to be suspended must be predetermined. Under no circumstance should the pump make contact with, or be "bounced" off, the Pumps must be installed in such a manner as to insure any disturbance in the well is kept to an bottom of the well. One helpful method to insure proper intake location is to accurately measure and pre-cut the tubing for wiped down with paper towels, moistened with distilled/ deionized water, labeled and then sealed into the top of the well. Cutting the tubing off-site in a controlled setting is most desirable. Tubing can be each individual well prior to site activity. A mark can be made on the tubing, which coincides with plastic bags until needed. If this practice is used, be sure to allow enough tubing to account for the distance from the top of the well casing to the flow cell.

11. Purge Rates

within the screened interval at the desired location, a clean electronic water-level-monitoring device is rate in the range of 100 to 500 ml/min. Pump the initial purge water to waste in order to prevent any the flow rate must not be varied, even during sample collection. If drawdown continues to exceed 0.3 Once the pump is set pump speed must remain constant such that flow rates never exceed 500 ml/min and, once stabilized, that all air is purged from the tubing and flow cell as the system fills with purge water. For LFPS, the lowered approximately 0.3 ft into the water column. Start the pump at a speed that results in a flow fouling of the flow-through cell. With the pump running, connect the tubing to the cell. Make sure ft., reduce the pump speed until the drawdown has stabilized but do not adjust pump speed to a flow rate below 100 ml/min. Flow rates below this level may induce pump stalling and undo the effort to should evacuation allow any portion of the well screen to be exposed (for wells screened below the reach stabilization. If drawdown does not come under control at 100 ml/min, then a field decision should be rendered as to how far to allow drawdown to continue until sample collection. Control over the purge rate is one of the most critical aspects of this technique. water table) or bring the well to dryness. Adjustments to pump speed are best made during the first 15 minutes. Once a "feel" for the purge rate is obtained, begin recording well stabilization indicators. Any significant change to purge rates after this time may negatively impact well stabilization measurements.

graduated cylinder. Record all of the required WQIPs once every 5 minutes. Once stability has been Purge rates are best monitored by measuring the flow from the discharge side of the flow cell with a attained and recorded, begin sample collection

Sampling

Once WQIPs have stabilized, or a 4-hour time decision has been rendered, sampling can proceed. Do not adjust the flow rate; maintain the same pumping rate during sampling that was used to purge the well. Collect the sample directly from the needle valve at the sample port. The needle valve allows means for sample collection without affecting water quality. It also allows for monitoring using the organic compounds are the parameters of concern. Any exceptions to this technique must first be recorded immediately after sample collection. This is the preferred method, especially if volatile for sample collection with significantly reduced backpressure and turbulence and offers the best flow-through cell during sample collection, thereby allowing a final WQIP measurement to be approved in writing from the NJDEP on a case-by-case basis before commencing sampling

pump is overheating. If the pump motor is not suspected, check the system for any exposure to direct If higher than expected water temperatures are being observed, evaluate whether the submersible sunlight, especially during warmer periods of the year.

13. Pump Decontamination

importance of proper pump decontamination is especially true when pumps are rented and utilized on constructed with plastic parts, or sealed inner workings that are inaccessible to direct handling are not an option for LFPS well-to-well consideration because of their limited ability to be The pump forms one of the two key elements of sampling equipment (tubing is the other). The a well-to-well basis. Never assume that rented pumps have been thoroughly cleaned. Pumps decontaminated thoroughly.

submersible, is more adaptable for well-to-well sampling; however, close attention to decontamination One manufacturer, Grundfos®, clearly states in the operational handbook that the pump cavity housing the motor shaft is completely refilled with distilled/deionized water. Care must also be For that reason, bladder pumps are not employed on a well-to-well basis unless they are constructed must be completely disassembled, including removal of the motor shaft from the stator housing, and all components within the impeller housing. Care must be taken upon reassembly to insure that the taken with this pump during periods of cold weather to avoid freezing of the coolant water. Proper Most bladder pumps can not be easily decontaminated in the field due to their unique construction. decontamination not only helps to ensure more reliable data; it also prolongs the life of any pump. with easy to clean parts and disposable bladders. Bladder pumps are best suited for dedicated (permanently installed) scenarios. Another popular pump, the variable-speed, 2-inch diameter is warranted.

14. Field Blank Collection

water. To overcome some of the difficulties that manual field blank collection through the inside of a water in liter or 4-liter containers. The traditional requirement that field blank water be supplied in the Activate the pump and collect the required field blank equipment, which comes in contact with the sample, must also come into contact with the field blank When employing LFPS techniques, collection of the field blank must follow the same general rules samples. As the water is removed from the cylinder, replace it with additional method blank water. This procedure will require that the laboratory supply larger volumes of field blank water i.e., bulk same identical containers as the sample being collected can not be practically satisfied when using LFSP. The identical bottle-to-bottle field blank requirement is waived for this sampling technique performing the analysis. Place a properly decontaminated pump into the graduated cylinder with decontaminated, graduated glass cylinder with method blank water supplied by the laboratory pumping system creates, the following procedure is strongly recommended. Fill a 1000-ml for all groundwater sampling equipment. This includes the requirement that "all" sampling sample tubing and plumbing fittings attached.

15. Tips

a). Temperature Measurement and Submersible Pumps

motor during operation. Sometimes, reduced flow rates may result in insufficient cooling of the motor and may elevate the temperature of the water to a point where it may begin to affect sample integrity. that do not stabilize may result. If this is observed, a field decision must be made to either discontinue oxygen, specific conductance and, to a lesser degree, pH measurement. Higher temperatures may also not acceptable. Always keep in mind that elevated temperature has a direct relationship with dissolved or continue with LFPS. If all other WQIPs have stabilized, then collecting the sample and qualifying If the pump is used in low-yielding, two (2)- or four (4)- inch-diameter wells, temperature increases stabilized, sampling should be discontinued. Turning the pump off and on to control overheating is relatively high Henry's Law constants. If sampling with submersible pumps continues to result in Variable-speed submersible pumps such as the Grundfos® Redi Flo 2 pump use water to cool the the water-quality data accordingly may be acceptable. If the temperature increase continues and elevated water temperature, other sampling alternatives should be discussed with the appropriate eventually exceeds 40% of the initial recorded temperature (Celsius) and other WQIPs have not reduce the concentrations of volatile organic compounds in groundwater samples due to their regulatory program.

design feature that normally moves cool water vertically across the motor (stator) housing. The use of result of water being drawn to the pump intake in a more horizontal flow pattern which diminishes the When using some submersible pumps in large-diameter wells (six inch and greater), overheating of the motor, followed by mechanical shutdown and possible motor damage, may occur. This is the specially designed shrouds may overcome this condition.

b). Control of Pump Speed

comes equipped with a "ten turn pot" frequency adjustment knob. This will allow significantly greater valve has been installed, the pump may not have enough torque to overcome the head pressure when drawdown and/or sample flow rates, it is possible for the pump to cease pumping. Then, if a check these corrective measures is conducive to LFPS. To avoid this scenario, make sure the control box submersible pumps including the Grundfos® Redi Flo 2 pump. When attempting to control initial In order to achieve the high turning speeds, low-speed startup torque is generally lacking in some situation or sometimes the pump may have to be pulled from the well and reinstalled. Neither of attempting to restart it. Sometimes, turning the pump to the highest speeds will overcome this control over pump speeds and the risk of losing pump flow will be reduced.

c). pH

Monitoring for stabilization of pH in groundwater is relatively straightforward and rarely requires calibration range should bracket the anticipated pH. If the pH is unknown, then a three-point serious troubleshooting. When calibrating for pH, do a two-point calibration, at a minimum. calibration must be made. The temperature of the buffer solutions should be as close to the

sure that the probe's electrical contact points are dry. As with preventative maintenance of any probe, periodically per the manufacturer's specifications. Overnight storage generally requires placement of the probe into a 2-molar (M) solution of potassium chloride. This solution may cause an unwanted temperature of the groundwater as possible. If the probe does not calibrate properly, check to make make sure that the pH probe is rinsed with distilled/deionized water between use and cleaned build up of salt, therefore, frequent rinsing is necessary.

d). Temperature of Calibration Solutions

calibration solution temperature. Proper calibration calls for solution temperatures of these parameters logistically difficult to bring solutions to groundwater temperature at the point of pump intake without setting (asphalt vs. open field) and other atmospheric and hydrogeological factors. In addition, it is sampling well-to-well as groundwater temperature can vary between wells based on depth, local first installing the pump, collecting purge water and allowing sufficient time to bring calibration Correct field measurement of dissolved oxygen, conductivity and pH requires tight control over to be the same as the groundwater being measured. This may be difficult to achieve when field solutions to appropriate temperatures.

container/bucket of water at the aforementioned temperature. When calibrating for dissolved oxygen, For the purposes of LFPS in New Jersey, calibration solution temperatures and the flow-through cell always make sure the cell is vented to the atmosphere by attaching short pieces of tubing to the inlet itself must be maintained at approximately $54^{\circ} F (12^{\circ} C \pm 2^{\circ} C)$ during calibration. When ambient conditions warrant, this will require the suspension of the solutions and flow-through cell in a and outlet fittings while the cell is submerged.

During the purge phase, record the difference between the stabilized temperature and the temperature event is extended for two or more days, appropriate adjustments can then be made to more accurately of the calibration solutions. This information must be presented to the end user. If the sampling reflect the groundwater temperature during calibration.

16. Low Flow Purging and Sampling for Low Yielding Wells

locate and delineate groundwater contamination, monitor wells are frequently installed in low-yielding The principal focus of water supply well installation is well yield. In contrast, the principal focus of monitor well installation is water quality; well yield is of secondary importance. In an attempt to water-bearing zones.

degassing and VOC loss. The operation of variable-speed, submersible pumps at low flow rates may Low-yield wells present challenges with respect to representative groundwater sample collection. Peristaltic pumps draw water out of the well by vacuum (negative pressure) which may result in result in heating of the sample as it flows around and through the pump, which may also lead to removal of water by bailers draws down the water level in the well by slug- type increments. degassing and VOC loss.

LOW FLOW SAMPLING DATA SHEET

															SHEE	T OF
SITE: DATE:									CONSULTIN	IG FIRM:						
WEATHE	.								FIELD PERS	BONNEL:						
								_								
MONITO	R W	ELL	.#:		WE	LL DEPTH:					SCREEN	ED/OPEN II	NTERVAL:			
WELL PE	RMI	T #	:		WELL	DIAMETER:		inches					TILLIVAL.			
PID/FID R	EAI	DIN	GS (ppm):	BACKGRO												
			,		OUTER CA	n.					ft below					
				BENEATH	INNER CAF	r: 		DEPT	H TO WATE	R BEFORE	PUMP INST	ALLATION	: ft	below TOC		
		(2)														
	5	Ž	p	Н	1	CIFIC CTIVITY	1	DOX NTIAL		OLVED GEN						DEPTH TO
	PURGING	SAMPLING	(pH ı	units)	\$	/cm)		nv)	1	g/l)	1	SIDITY TU)	1	RATURE ees C)	PUMPING	WATER
TIME	2	SA	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	RATE	(ft below
				NA		NA		NA					REWING		(ml/min)	TOC)
	\vdash	\vdash						IIA .		NA		NA		NA		
	-															
	-			1												
	_															
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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION FIELD INSTRUMENT AND CALIBRATION DATA

SITE: DATE: FIELD PERSONNEL: START TIME: START TIME: METER METER
DISSOLVED OXYGEN TURBIDITY ORP Standard
Water Temp Baro. Pres. Saturation Init. Mtr. Rd. Mtr. reset to O ₂ Satur. % Standard Temp. Standard Conc. Initial Reading Meter reset to
SPECIFIC CONDUCTANCE Initial Meter Conc. Reading Reset to Temperature Lot # and Exp. Date
Standard#1 Standard#2 Standard#3 Standard#4
pH CALIBRATION Meter Lot # and Exp. Date Buffer Temp. Reading mV Reset To Lot # and Exp. Date 4 — — 7 — — 10 — —

References

- By Well-Bore Flow in Long-Screen Wells" Ground Water, Vol.34, No.2 Church, Peter E., and Granato, Gregory E., "Bias in Ground Water Data Caused
- Koehnlein, Susan A., "Effects of Small-Scale Vertical Variations in Well-Screen Gibs, J., Brown, Allan G., Turner, Kenneth S., MacLeod, Cecilia L., Jelinski, James C., Representative Ground-Water-Quality Samples" Ground Water, Vol. 31, No.2 Inflow Rates and Concentrations of Organic Compounds on the Collection of March-April, 1993.
- Hart, Barbara F., Tomlinson, Rodger B., and Chaseling, J., "Using the Stabilization Plateau to Estimate Optimum Well Purge Volume", Ground Water Monitoring Review, Summer, 2000.
- Hutchins, Stephen R., Acree, Steven D., "Ground Water Sampling Bias Observed In Shallow, Conventional Wells" Ground Water Monitoring Review, Winter,
- "Field Evaluation of Seven Sampling Devices for Purgeable Organic Compounds in Ground Water" Ground-Water Contamination: Field Methods, ASTM STP Imbrigiotta, Thomas E., Gibs, J., Fusillo, T.V., Kish, George R., Hochreiter, Joseph J., 963, A.G. Collins and A. J. Johnson, Eds., American Society for Testing and Materials, Philadelphia, PA 1998.
- Attenuation of Contaminants in Ground Water", Ground Water Monitoring McAllister, P.M., Chiang, C.Y. "A Practical Approach to Evaluating Natural Review, Spring, 1994.
- "Technical Requirements for Site Remediation", N.J.A.C. 7:26E et seq., July 1999. New Jersey Department of Environmental Protection (NJDEP) N.J.S.A.13:1D et seq.,
- Parker, Louise V. "The Effects of Ground Water Sampling Devices on Water Quality: A Literature Review. Ground Water Monitoring Review, Spring, 1994.
- Puls, Robert W., and Barcelona, Michael J., "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures", USEPA Report EPA/540/S-95/504, April, 1996.
- Rose, S., and Long, A., "Monitoring Dissolved Oxygen in Ground Water: Some Basic Considerations" Ground Water Monitoring Review, Winter, 1998.
- USEPA, Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures, USEPA Report EPA/540/S-95/504. December, 1995.

NEW JERSEY DEPARTMENTAL OF ENVIRONMENTAL PROTECTION Low Flow Purging and Sampling Guidance Page 18 of 18

- Quality Criteria Levels, Office of Water Engineering and Analysis Division, USEPA, Method 1669: Sampling Ambient Water for Trace Metals at EPA Water April, 1995.
- Of Wells, and Collection of Related Data, U.S. Geological Survey, Report 95-398. 1995. Water-Quality Assessment Program: Selection, Installation, and Documentation USGS, Ground-Water Data - Collection Protocols and Procedures for the National
- Water-Quality Assessment Program: Collection and Documentation of Water Quality Samples and Related Data, U.S. Geological Survey Report 95-399. USGS, Ground-Water Data-Collection Protocols and Procedures for the National
- USGS, Handbooks for Water-Resources Investigations, Techniques of Water-Resources Investigations, Book 9, Chapter A2, August, 1998.
- USGS, National Field Manual for the Collection of Water-Quality Data, Selection Of Equipment of Water Sampling, USGS, August 1998.
- For Superfund and RCRA Project Managers" U.S.E.P.A. Report 542-Yeskis, Douglas, and Zavala, B., " Ground Water Sampling Guidelines S-02-001, May, 2002.



APPENDIX D WATER SAMPLING LOGS

Well Type:	Well Type: 🖾 Monitor	☐ Extraction	□ Other	The state of the s	And the second s			Well No.: MW-2 S
Job Name: Job Number	Job Name: UAL-Newark Libert	<u>uty</u>	Well Material: YPVC Task	/C Date:	St. Steel	Other Fine	Time: 62: 75	
Recorded By:	Signatific	ME			Sampled By B. Ac	3. Adams ing Team Members)		

INSTRUMENT IDENTIFICATION RECORD

Instrument	<u>8</u>	ЬН	Conductivity	Temp.	Dissolved O ₂	Turbidity	ORP	Depth to Water	PID Reading (Inside inner casing)
Serial No.	N/A	Horiba	Horiba	Horiba	Horiba	Honba	Horiba	Heron	N/A

	Instrument	92	Ed.	3	Conductivity	Jemp.	DISSOIVED O	, morant	, and	to Water	(er inner casing)	
	Scrial No.	N/A	Horiba	Horiba	iba	Horiba	Horiba	Horiba	Horiba	ha Heron	N/A	
i o	For Calibration Information, see Instrument Calibration Record dated (141) (44) (44)	formation,	see Instrumer	nt Callibration	n Record dates	ا مطاع ها	Horse 19	. ,:015)				
						WELL	WELL PURGING	ø				
ದ ತಿ	PURGE VOLUME Casing Diameter (D in inches):	UME D in inche	s):	1	шU	PURGE METHOD	ETHOD			+ 1	and many particular particular and an analysis of the second	
Tol	Total Depth of Casing (TD in feet BTOC): Water Level Denth (WL in feet BTOC):	ising (TD in	n feet BTOC)	4.54	,	☐ Submersible Other - Type:	☐ Submersible ☐ Centrifugal ☐ Bladder, Pump No.: <u>Cooppump</u> Other - Type:	al 🛮 Bladder,	Pump No.:	Cemmun		
Ser	Number of Well Volumes to be Purged: Screened Interval in Feet (BTOC) from or water column	/olumes to in Feet (BT	be Purged: [OC] from	NA to	u.u	UMP INT	DIMP INTAKE SETTING Discribition Discripton Middle of water column Rup set 1 15 1 15 3	FING Middle	of water co		Other. middle of screened interval	erval
Ы	PURGE VOLUME CALCULATIONS	UME CA	ALCULAT	SNOI	О	Depth in feet (BTOC)	втос)				-	
		unod	×	3 X 3	X 0.0408 =	# 80				Callons		
J	TD (feet) W	WL (feet)	D (inches)		/olum		Calculated	Calculated Purge Volume	υ			
Ē	FIELD PARAMETER MEASUREMENT	METER	MEASUR	EMENT								l
Time	Minutes Elapsed	Rate (mL/	Gallons Purged	Hd	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	Temp.	ORP (mV)	Depth to Water	Comments	
17:42	G	û /								1/153	30.44 Pers 4	
6.33	-	225	4,25	5.27	62.2	324	. 32	MUS	25/-	191,		
45.43	3	çec	610	69 3°F	2,26	00	600	15.75	1551-	7.65		
65.33	5	300	1.25	846	2.24	0.0	36.	14.74	-15.1	246		
201,0	21 7	366	1115	1.5	2.13	5.1	(0)	14.74	151-	13.5		
0.80	. 15	36.	~2,25	£ 200	27.72	5.2	23'5	14:71	-150	2.61		
0.10%		30.	2.75	13.26	27.2	52,7	000	14,79	641-	157 1	Set: 70. 16. 19. 1	
Chil	17	(Sec.E.)								1,76	54MP2C	
6714	1. 24										- 1	
1160	1 21									30.7	Froot ECTIV	
0720	. 30											1
											3 HOME VOAS WITH	1/1/16
											3-16/MORES 24400	C a
							1					

olw sep or Dirwn Color. ciry Other Other: δic OBSERVATIONS DURING WELL PURGING: Well Condition: OiC

Turbidity (Qualitative): 1642/ Odor: April 1615/Purge Water Disposal: D San. Sewer D Storm Sewer B Drum: Type 35-gal Carbon

Page 1 of 1

Job Name: UAL-New: Job Number: 8513.002	UAL.	UAL-Newark Liberty	berty	Well	Material:	FPVC Da	Date: 03	Ost. Steel	Other	Time 093	· · · · · · · · · · · · · · · · · · ·
Recorded By:	By:	S. Della	1			THE RESIDENCE OF THE PERSON OF		Sampled By: B.	y: B. Adams Samulino Team Members)	mbers)	
		(Signature)		NS	RUME	NT IDEA	INSTRUMENT IDENTIFICATION RECORD	ION RE	CORD		
Instrument		PID	Hd	Com	Conductivity	Temp.	Dissolved O ₂	Turbidity	y ORP	Depth to Water	PID Reading (Inside ter inner casing)
Serial No	+	N/A	Horiba	Horriba	pa	Horiba	Horiba	Horiba	Horiba	ьа Негоп	N:A
For Calibr	ation Inf	ormation, s	For Calibration Information, see Instrument Calibration Record dated Treto calibration	t Calibration	Record date	a field ca	listerial 3	5/13/65			
						WELL	WELL PURGING	9			
PURGE VOLUME Casing Diameter (D in it	WOLL ameter (I	PURGE VOLUME Casing Diameter (D in inches): Total Death of Casing (TD in fi	PURGE VOLUME casing Diameter (D in inches): Total Death of Casins (TD in feet BTOC): 13 4C	13 40	was not que	PURGE METHOD D Bailer - Type: D Submersible D Centri	AETHOD TPE: Is Contribug	al 🗆 Bladder,	Pump No.:	dundoag	
Water Level Dep Number of Well Screened Interval or water column	el Depth f Well Ve Interval ii	Water Level Depth (W. in feet BTOC): Number of Well Volumes to be Purged: Screened Interval in Feet (BTOC) from or water column	Water Level Depth (WL in feet BTOC): Number of Well Volumes to be Purged: Screened Interval in Feet (BTOC) from or water column	F? '16. :		Other - Type PUMP IN I Near Botto	Other - Type: PUMP INTAKE SETTING D Near Bottom D Near Top Middle of water column Other series 11.25 Syp	TING P ⊠ Middle	of water co	lum Oth	Other: middle of screened interval
PURGE VOLUME	: VOLL	JME CA	CALCULATIONS	SNO	-	Depth in feet (BTOC)	(BTOC)		a deligative property dependency of the control of		ADDRESS OF A STATE OF THE STATE
			×	2 X	X 0.0408 =	= 80:				Gallons	
TD (feet)	et) W		D (inches)	No. V	No. Volumes		Calculatex	Calculated Purge Volume	95		
FIELD PARAME!	PAKAN		te Gallons pH	PH Hd	Cond.	Turbidity	00 k	Temp.	ORP	Depth to	
Time E	Elapsed	min)	Purged		(mS/cm)	(NTUs)		(20)	(mv)	(ft t.o.c.)	curs
21-12	c	Į								X,	Deg 4 12 12 5 5
-	[7]	505	4.50	7,76	367	0.0	12.5	15.63	28.	107	
+	3 3	T	2 12	7 67	1611.	327	0.0	15.63	177	9.12	
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	35.		13.€	503	2.00	3,81.2	6.67	10.5)	145	2,7	
100	21	ççç	315	830	202	200	0.0	1500	2h	1.(3	
1	24	837	240	2:50	6.63	Š		(3 C)		J. 1. 1.	Suole
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GI ~ Greater Ihan. NM =: Not Measured	r fhan. feasured.	LT = Less NC = Yot	LT = Less Than. NC = Vot Collected.							O.Y.	
CALICIA	CINCIL	NIGHT	COCCUPATIONS DISSING WITH DISSING WAS CARLED	DIEGINI	2. Well Cox	distant.	7		Color	アラブ	

GROUNDWATER SAMPLING FORM

Page 1 of 1

Well No .: MW- 4 PID Reading (Inside inner casing) Time: 1075 Depth to Water y: B. Adams (Sampling Team Members) □ Other ORP INSTRUMENT IDENTIFICATION RECORD Turbidity Sampled By: St. Steel Dissolved O₂ Date: Temp. Well Material: VPVC Task Other Conductivity ☐ Extraction Hd Job Name: UAL-Newark Liberty Job Number: 8513.002 84VW. (Signature) Well Type: Monitor PID Recorded By: Instrument

		1	ned interval										(c · va ·				1104	me wheel	S. LAP. S.	
			: middle of scree				Comments	83.41 Jugg	•				Were party	SAMON CO			ためつのよう	3 W. 1. 4.	- 1	
		dumdos	n Other		Jallons		Depth to Water (ft t.o.c.)	\$ 0.5°	015	1 44	71.0	+	+	1.6.1		-	-			T
		mp No.:	water colum							7	+	+	+	+			1			+
3los		🗆 Bladder, Pu	NG Middle of	And the Control of th	urge Volume		Temp. (°C)				_	1	\top	\top					1	1
गिर मिल	URGING	THOD Contribugal	Near Top	TOC)	Calculated P		DO (mg/L)		12.1	000	+	\dagger	+	+						+
Firth Calu	WELL P	URGE ME Bailer - Type: Submensible I	UMP INTA	apth in feet (B'	11 80		Turbidity (NTUs)		0.0	, (C.2)	0.0	483.0	123.67	(34.0						
Record dated		0.000	0.0	ă	X 0.040 Volumes		Cond. (mS/cm)		2.6.1	2.579	3.5%	2.58	2.53	2:51						
t Calibration		1.1	NA to	ONS	×	EMENT	Hď		8.95	9.42	9.54	404	1,73	3,5						
ee Instrumen		feet BTOC):	e Purged:	LCULATI	X D (inches	MEASUR	Gallons Purged		25.7	41.0	N.5	N20	22.5	13.0						
formation, se		UME D in inches) sing (TD in	olumes to b	UME CA	1	METER !	Rate (mL		83	500	S,	ुं ु	300	27%						1
libration Inf		GE VOL	ar of Well V ed Interval i	GE VOL	1.0	D PARAI	Minutes Elapsed	0	i	ü	<i>6</i> -	15	Ĭ,	3	7.4	12.	36			
For Ca		PUR Casing Total [Numb Soreen or wate	PUR	OT.	FIEL	Time	1035	35.01	11,01	1044	1047	05:01	(0.3)	10.00	1100	110.5			
	For Calibration Information, see Instrument Calibration Record dated Firth Calibration [13]	For Calibration Information, see Instrument Calibration Record dated field (a th what I stos) WELL PURGING	For Calibration Information, see Instrument Calibration Record dated Firth Calibration Record	For Calibration Information, see Instrument Calibration Record dated firt() (a \(\text{tot} \) \sqrt{13}\(\text{los}\) \sqrt{13}\(\text{los}\) \sqrt{13}\(\text{los}\) \sqrt{13}\(\text{los}\) \sqrt{13}\(\text{los}\) \sqrt{13}\(\text{los}\) \sqrt{13}\(\text{los}\) \sqrt{14}\(\text{los}\) \	dder, Pump No.: <u>Geop</u> iddle of water column	dder, Pump No.: Geop	well Purging 5 (3) (5) Second dated field (a (4) (2) \frac{1}{12}\frac{1}	WELL PURGING WELL PURGING WELL PURGING WELL PURGING	WELL PURGING RGE VOLUME RGE VOLUME RGE VOLUME RGE VOLUME RGE VOLUME RECTORDING Contribution Record dated fire() (2 (14 to 12 km) 5/13 (13 (15) (15) (14 to 12 km) 5/13	WELL PURGING See Instrument Calibration Record dated Firth Ca the 12 km Second dated Firth Ca the 12 km Ca the 12 km	WELL PURGING WELL PURGING WELL PURGING	WELL PURGING SGE VOLUME REACY OLUME REACY	WELL PURGING WELL PURGING WELL PURGING WELL PURGING	Depth of Casing (TD in feet BTOC) 14/3C 2 2 2 2 2 2 2 2 2					DURGE METHOD PURGE METHOD DURGE METHOD DURGE METHOD Duranter (D in inches) A	

Color Sluck Tunt Budin obstander of draw Other Other: Size OBSERVATIONS DURING WELL PURGING: Well Condition: CXC Turbidity (Qualitative): ハムン (レルン Odor: いまたにら Sixいない over Purge Water Disposal: □ San. Sewer □ Storm Sewer 図 Drum: Type 35-231 Carbon

LT = Less Phan. NC = Net Collected.

- <u>}</u>

GROUNDWATER SAMPLING FORM

Page 1 of !

B-M Well No .: MW- 24 Awiers engineer Wing with Other, middle of screened interval From OFF C 12 FG PID Reading (Inside inner casing) SAMPLE 14.7h du separator cratura Comments XX 3 16 1133 Gry Black Depth to Water Heron 1,29 Depth to Water (ft t.o.c.) 11.50 11.291 11.30 □ Bailer - Type: □ Submersible □ Centrifugal □ Bladder, Pump No. Cdeopump 11.334 121 16.57 11.22 Other Time: Gallons (6,23) 11.53 y: B. Adams (Sampling Team Members) Other - Type:
PUMP INTAKE SETTING

I Near Bottom I Near Top Middle of water column

Runp 5ct 131 Horriba ORP Color: INSTRUMENT IDENTIFICATION RECORD 101-16.4 -16-5 -160 191-191 101 ORP (mV) Ouher Calculated Purge Volume Turbidity Horiba 15.42 15.72 12.41 1594 (°C) 1577 18:72 15.92 St. Steel Sampled By: For Calibration Information, see Instrument Calibration Record dated Tirely Calibrated 17.3/00 WELL PURGING Other. Dissolved O₂ Size DO (mg/L) 00 S 00 PURGE METHOD 0.0 123 00 0.0 Horiba Depth in feet (BTOC) 송 OBSERVATIONS DURING WELL PURGING: Well Condition: Oktobridity (Qualitative): Act Odor: Odor: Act Of Oktobridity (Qualitative): Drum: Type 35-gal Carbon Date: Turbidity (NTUs) 1580 351.0 747 5516 160.2 1.4 Horiba Temp. 1 PVC X 0.0408 = Other Cond. (mS/cm) Well Material: Task 3.00 3.96 2:45 2.4,2 12'5 2 7 Conductivity No. Volumes Horiba Casing Diameter (D in inches):

Total Depth of Casing (TD in feet BTOC):

Water Level Depth (WL in feet BTOC):

[\$\vec{\vec{v}}\$: 54' FIELD PARAMETER MEASUREMENT 28:3 26,32 3.10 17:13 Hd 4.24 32.8 7.31 PURGE VOLUME CALCULATIONS 5 ☐ Extraction Number of Well Volumes to be Purged: NA) X D (inches) Нопра 90.17 2500 05 ZN Gallons Purged 4.50 Screened Interval in Feet (BTOC) from LT " Less Than. NC " Not Collected. 23.5 Hd Job Name: UAL-Newark Liberty Job Number: 8513.002 Power. (Signature) WL (feet) ES Rate (mL/ min) 300 3 300 300 35 SOE Monitor Monitor PURGE VOLUME PID XX Minutes Elapsed G! * Greater I han. NM - Not Measured. or water column TD (feet) Instrument Recorded By: 5 27 2 30 Serial No. 0 :1 3 77 5 15 Well Type: Time 1700 1923 150 24.6 1204 1712 1145 1124 1215 114% 5



APPENDIX E

LABORATORY ANALYSIS REPORTS

CLIENT SAMPLE ID.

	EMSI ANALYTICAL		Contract:		>	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil			Lab Sample ID:	1604-7	
Sample wt/vol:	30.03	(g/mL)	5	Lab File ID:	H1518	
% Moisture: 6	đe	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	-	(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	Î Î	>
ON WAS	COMPOUND	CON(CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	a

35 U	35 U	35 U	35 U	35 U	35 U	35 U		
1016	1221	232	242	248	254	1260	2	
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Aroclor-1221		11141-16-5 Aroclor-1242			1103/-63-1 Aroclor-1260	:	

N/A = Not Applicable U= Not detected FORM I PEST PCB

CLIENT SAMPLE ID.

ab Name: EMSL A	EMSL ANALYTICAL		Contract:		818	
ab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil			Lab Sample ID:	1604-8	
sample wt/vol:	30.02	(g/mL)	מ	Lab File ID:	H1519	
% Moisture: 13	qec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	tt/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/06/05	
njection Volume:	-	_(uL)		Dilution Factor:	-	
3PC Cleanup: (Y/N)	z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		> >
CN W	COMPOSIND	CONC	CONCENTRATION UNITS:	JNITS:	ua/Ka	g

	*Results Reported on a Dry Weight Basis	*Results Reported o	N/A = Not Applicable
7	38	1260	11096-82-5 Aroclor-1260
_	38	-1254	11097-69-1 Aroclor-1254
ח	38	1248	12672-29-6 Aroclor-1248
D	38	1242	53469-21-9 Aroclor-1242
ם	38	1232	11141-16-5 Aroclor-1232
ח	38	-1221	11104-28-2 Aroclor-1221
⊃	38	-1016	12674-11-2 Aroclor-1016

N/A = Not Applicable U= Not detected

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL Al	EMSL ANALYTICAL		Contract:		S	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	,		Lab Sample ID:	1604-1	
Sample wt/vol:	30.02	(g/mL)	Б	Lab File ID:	H1512	
% Moisture:	oep	decanted: (Y/N)	Z	Date Received:		
Extraction: (SepF/Cont/Sonc)	/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	/olume:	10	(ml)	Date Analyzed:	02/06/05	
Injection Volume:	-	_(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	Hd.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	Î î	> >
CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	a
	- Aroclor-1016				34	ם
11104-28-2	Aroclor-1221				45	0
11141-16-5	Aroclor-1232				45	0
53469-21-9	Aroclor-1242				34	0
11097-69-1	Aroclor-1254				34	ח
11096-82-5	Aroclor-1260				34	⊃
N/A = Not Applicable U= Not detected			*Results Reported o	*Results Reported on a Dry Weight Basis	sis	

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSLA	EMSL ANALYTICAL		Contract:		Sab	\sim
			040		000	
Lab code:	Case No.:		SAS NO.		SON SON	
Matrix: (soil/water)	Soil			Lab Sample ID:	1604-2	
Sample wt/vol:	30.00	_ (g/mL) _	Б	Lab File ID:	H1513	
% Moisture: 59	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10	(ml)	Date Analyzed:	02/06/05	
Injection Volume:	-	_(uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	z	.Hd		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	(N)	>
CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ng/Kg	ø
12674-11-2	Aroclor-1016				1600	כ
11104-28-2	Aroclor-1221				1600	D
11141-16-5	Aroclor-1232				1600	D
53469-21-9	Aroclor-1242				1600	D
12672-29-6	Aroclor-1248				1600	ח
11097-69-1	Aroclor-1254				1600	Э
11096-82-5	- Aroclor-1260				1600	ם
		*				
N/A = Not Applicable		ť	Results керопеа	"Results Reported on a Dry Weight Basis	asis	
U= Not detected						

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL Al	EMSL ANALYTICAL		Contract:		\$ 3	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ı		Lab Sample ID:	1604-3	
Sample wt/vol:	30.00	(g/mL)	6	Lab File ID:	H1514	
% Moisture:	oep _	decanted: (Y/N)	z	_ Date Received:		
Extraction: (SepF/Cont/Sonc)	(Sonc	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	/olume:	10 (ml)	(la	Date Analyzed:	02/06/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	Z	.Hd		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	2 2	>
CAS NO.	COMPOUND	ÖĒ	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ng/Kg	Ø
12674-11-2	Aroclor-1016				34	_
- ;	Aroclor-1221				34	Þ
11141-16-5	Aroclor-1232				34	ם
53469-21-9	Aroclor-1242				34	ם
12672-29-6					34	D
;	Aroclor-1254				34	ם
;	Aroclor-1260				34	ם

FORM I PEST PCB

*Results Reported on a -- Dry Weight Basis

N/A = Not Applicable U= Not detected

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		53 N	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1604-4	
Sample wt/vol:	30.01	(g/mL)	6	Lab File ID:	H1515	
% Moisture: 29	- P	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/06/05	
Injection Volume:	-	(nr)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	z	.Hd		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		>
CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	ø

940 940 940 940 940 ----- Aroclor-1016
----- Aroclor-1221
----- Aroclor-1242
----- Aroclor-1248
----- Aroclor-1254

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

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Cohoo

CLIENT SAMPLE ID.

Lab Name: EMSL	EMSL ANALYTICAL		Contract:		54		
ab Code:	Case No.:		SAS No.:		SDG No.:		
Matrix: (soil/water)	Soil			Lab Sample ID:	1604-5		
Sample wt/vol:	30.00	(g/mL)	6	Lab File ID:	H1516		
% Moisture: 3	dec	decanted: (Y/N)	z	Date Received:			
Extraction: (SepF/Cont/Sonc)	ont/Sonc)	Sonc		Date Extracted:	05/04/05		
Soncentrated Extract Volume:	t Volume:	10 (ml)		Date Analyzed:	05/06/05		
njection Volume:	-	_(uL)		Dilution Factor:	-		
3PC Cleanup: (Y/N)	Z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		> >	
CAS NO.	COMPOUND	CONCENTRATI (ug/L or ug/Kg)	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	σ	
2674.44.2	Aroclor-1016				34	¬	
1	Aroclor-1221				34	n	
;					34	ם	
3469-21-9	Aroclor-1242				34	n	
9-5-22-21	Aroclor-1248				34	n	
11097-69-1	Aroclor-1254				34	n	
11096-82-5	Aroclor-1260				34	ח	
V/A = Not Applicable		*Results	Reported o	*Results Reported on a Dry Weight Basis			

U= Not detected

3/90

FORM I PEST PCB

CLIENT SAMPLE ID.

				10 M M 10 M 10 M	775	
Lab Name: EMSL A	EMSI, ANALYTICAL		Contract:			
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ı		Lab Sample ID:	1604-6	
Sample wt/vol:	30.00	(g/mL)	В	Lab File ID:	H1517	
% Moisture: 7	oep -	decanted: (Y/N)	Z	Date Received:		
Extraction: (SepF/Cont/Sonc)	(Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/06/05	
Injection Volume:	-	_(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	H.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		>
CAS NO.	COMPOUND	CONCI (ng/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg	Ø

12674-11-2 Aroclor-1016		36	ם
;		36	n
	L	36	כ
:	L	36	כ
	L	36	ס
1		36	n
:		36	n
N/A = Not Applicable	*Results Reported or	*Results Reported on a Dry Weight Basis	

N/A = Not Applicable U= Not detected

FORM I PEST PCB

CLIENT SAMPLE ID.

					1	
Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		2 5	
ab Code:	Case No.:		SAS No.:		SDG No.:	
Ma tri x: (soil/water)	Soil	,		Lab Sample ID:	1585-13	
Sample wt/vol:	30.11	(g/inL)	Б	Lab File ID:	H1480	
% Moisture: 3	gec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Soncentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/06/05	
njection Volume:	-	_ (uL)		Dilution Factor:	-	
3PC Cleanup: (Y/N)	Z	:Ha		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	- -	> >
SAS NO.	COMPOUND	CONC (ng/L	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg	Ø

12674-11-2 Aroclor-1016	34	⊃
11104-28-2 Aroclor-1221	34	ר
11141-16-5 Aroclor-1232	34	כ
53469-21-9 Aroclor-1242	34	Ω
12672-29-6 Aroclor-1248	34	Ω
11097-69-1 Aroclor-1254	34	⊃
11096-82-5 Aroclor-1260	34	⊃

*Results Reported on a -- Dry Weight Basis

N/A = Not Applicable U= Not detected FORM I PEST PCB

CLIENT SAMPLE ID.

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~	

Lab Name:	EMSL A	EMSL ANALYTICAL		Contract:		SSD	
Lab Code:		Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	water)	Soil	ı		Lab Sample ID:	1585-14	
Sample wt/vol:	;	30.05	(g/mL)	5)	Lab File ID:	H1481	
% Moisture:	30	oep -	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	sepF/Cont	(Sonc	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Extract	/olume:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	.me:	-	_ (uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	(Y/N)	z	PH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	-	> >
CAS NO.		COMPOUND	CONCI (ng/r c	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	Ø

12674-11-2 Aroclor-1016		950	-
14104-28-2 Aroclor-1221	1	950	ח
11141-16-5 Aroclor-1232		950	Ω
53469-21-9 Aroclor-1242	l	950	ח
12672-29-6 Aroclor-1248	L	950	ח
11007-69-1 Aroclor-1254	l	950	ם
11096-82-5 Aroclor-1260	l	950	n
	L		
N/A = Not Applicable	*Results Reported on	*Results Reported on a Dry Weight Basis	

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CLIENT SAMPLE ID.

1	- 1								1		r		r	[]		T
								>	ø	n	_	ח	כ	n	n	ח
56	SDG No.:	1585-15	H1482		05/04/05	90/90/50	-	(N)	ng/Kg	35	35	35	35	35	35	35
		Lab Sample ID:	Lab File ID:	Date Received:	Date Extracted:	Date Analyzed:	Dilution Factor:	Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	UNITS:							
Contract:	SAS No.:		6	z		(ml)			CONCENTRATION UNITS: (ug/L or ug/Kg)							
AL	::0	-	(g/mL)	decanted: (Y/N)	Sonc	01.	(nr)	Hd.	QND	1016	1221	1232	1242	1248	1254	1260
EMSL ANALYTICAL	Case No.:		30.11	4	pF/Cont/Sonc)	Concentrated Extract Volume:	ne: 1	(Y/N)	COMPOUND	Aroclor-1016	Aroclor-1221		Aroclor-1242			11096-82-5 Aroclor-1260
Lab Name:	Lab Code:	Matrix: (soil/water)	Sample wt/vol:	% Moisture:	Extraction: (SepF/Cont/Sonc)	Concentrated E	Injection Volume:	GPC Cleanup: (Y/N)	CAS NO.	12674-11-2	44404-11-2	77777	52460.24.0	12672-20-6	11007-69-1	11096-82-5

*Results Reported on a -- Dry Weight Basis

N/A = Not Applicable U= Not detected

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CLIENT SAMPLE 10.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		S6 D	
	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil			Lab Sample ID:	1585-16	
Sample wt/vol:	30.13	(g/mL)	ō	Lab File ID:	H1483	
% Moisture: 29	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	nt/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	. Volumo:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	Z	PH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	2 6	>
CAS NO.	COMPOUND	CONC (ng/L	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	Ø
						:

		6	=
12674-11-2 Aroclor-1016		930	0
11104-28-2 Aroclor-1221	1	930	n
11141-16-5 Aroclor-1232	L	930	n
53469-21-9 Aroclor-1242	L	930	ח
12672-29-6 Aroclor-1248	l	930	-
11097-69-1 Aroclor-1254	L	930	Ω
11096-82-5 Aroclor-1260	L.,,	930	n
N/A = Not Applicable U= Not detected	*Results Reported or	Results Reported on a Dry Weight Basis	

FORM I PEST PCB

CLIENT SAMPLE ID.

6 8

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		27	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-11	
Sample wt/vol:	30.01	(g/mL)	6	Lab File ID:	H1478	
% Moisture: 50	дер	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volurae:	10 (ml)		Date Analyzed:	02/02/02	
Injection Volume:	-	(nL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	Z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	(N)	> >
CAS NO.	COMPOUND	CONCE (ug/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	ø
12674-11-2	Aroclor-1016				29	ם
	- Aroclor-1221				29	ם
1	Aroclor-1232				29	>
,					67	D
12672-29-6	- Aroclor-1248				67	ח
11097-69-1					29	٦
11096-82-5	Aroclor-1260				29	D
N/A = Not Applicable U= Not detected		*Result	s Reported o	*Results Reported on a Dry Weight Basis	lasis	

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CLIENT SAMPLE ID.

Lab Name:	EMSL A	EMSL ANALYTICAL		Contract:		370	
Lab Code:		Case No.:	-	SAS No.:		SDG No.:	
Matrix: (soil/water)	ater)	Soil	1		Lab Sample ID:	1585-12	
Sample wt/vol:		30.02	(g/mL)	6	_ Lab File ID:	H1479	
% Moisture:	2	qe	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	ppF/Con	(Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Extract \	/olume:	10 (ml)		Date Analyzed:	02/02/02	
Injection Volume:	me:	-	(uL)		Ditution Factor:	20	
GPC Cleanup: (Y/N)	(Y/N)	Z	pH:		Suffur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	· · ·	> >
CAS NO.		COMPOUND	CONC CONC	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	a

12674-11-2 Aroclor-1016		680	n
11104-28-2 Aroclor-1221	1	680	n
11141-16-5 Aroclor-1232	I	680	n
53469-21-9 Aroclor-1242	L	680	ח
17872-29-6 Aroclor-1248	l	680	n
	l	680	ם
11096-82-5 Aroclor-1260	L	680	D
	L		
N/A = Not Applicable	*Results Reported on	*Results Reported on a Dry Weight Basis	

N/A = Not Applicable U= Not detected

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CLIENT SAMPLE ID.

								>	a	ກ	n	n	n	n	ח	ח
SS	SDG No.:	1585-9	G1708		05/04/05	05/07/05	-	(N).	ug/Kg	34	34	34	34	34	34	34
		Lab Sample ID:	Lab File ID:	Date Received:	Date Extracted:	Date Analyzed:	Dilution Factor:	Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	UNITS:							
Contract:	SAS No.:		6	z		(ml)			CONCENTRATION UNITS: (ug/L or ug/Kg)							
		1	(g/mL)	decanted: (Y/N)	Sonc	10 (n	(uL)	Ä.		9	. ~		1 0	1 60	4	o
EMSL ANALYTICAL	Case No.:	Soil	30.00	1	(out/Sonc)	ct Volume:	-	z	COMPOUND	Aroclor-101	Arocior-122	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-125	Aroclor-126
Lab Name: EMSI	Lab Code:	Matrix: (soil/water)	Sample wt/vol:	% Moisture:	Extraction: (SepF/Cont/Sonc)	Concentrated Extract Volume:	Injection Volume:	GPC Cleanup: (Y/N)	CAS NO.	42674.41.2	14104 28 2 Aroclor-1221	4444465	62460.21.0		11097-69-1 Aroclor-1254	11096-82-5 Aroclor-1260

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*Results Reported on a -- Dry Weight Basis

N/A = Not Applicable U= Not detected

CLIENT SAMPLE ID.

Lab Name:	EMSL A	EMSL ANALYTICAL		Contract:	ı	18	
Lab Code:		Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	/water)	Soil	1		Lab Sample ID:	1585-10	
Sample wt/vol:	ol:	30.00	(g/mL)	Ö	Lab File ID:	G1709	
% Moisture:	30	дер	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	SepF/Con	(Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	d Extract \	Volume:	10 (ml)		Date Analyzed:	02/07/05	
Injection Volume:	lume:		(nf.)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	p: (Y/N)	z	.Hd		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	Ŷ÷	>
CAS NO.		COMPOUND	CONC (ng/L	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	ø

12674-11-2 Aroclor-1016	48		
11104-28-2 Aroclor-1221	48		_
11141-16-5 Aroclor-1232	48	,	7
53469-21-9 Aroclor-1242	48		_
12672-29-6 Aroclor-1248	48		_
11097-69-1 Aroclor-1254	48		
11096-82-5 Aroclor-1260	48		_
N/A = Not Applicable U= Not detected	*Results Reported on a Dry Weight Basis		

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CLIENT SAMPLE ID.

S-8D	SDG No.:
Contract:	SAS No.:
EMSL ANALYTICAL	Case No.:
Lab Name:	Lab Code:

Lab Sample ID: Lab File ID: 5 (g/mL) 30.00 Soil Matrix: (soil/water) Sample wt/vol:

Case No.:

Lab Code:

1916-5

G2262

05/04/05 Date Extracted: Date Received: Z decanted: (Y/N) % Moisture:

05/27/05 Date Analyzed: Ē 9 Concentrated Extract Volume: Extraction: (SepF/Cont/Sonc)

Sonc

Dilution Factor: (L) GPC Cleanup: (Y/N) Injection Volume:

Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) 품 z

CONCENTRATION UNITS: (ug/L or ug/Kg) COMPOUND

CAS NO.

a

ug/Kg

12674-11-2 Aroclor-1016	48	כ
11104-28-2 Aroclor-1221	48	ס
11141-16-5 Aroclor-1232	48	ם
53469-21-9 Aroclor-1242	48	_
12672-29-6 Aroclor-1248	48	>
11097-69-1 Aroclor-1254	48	>
11096-82-5 Aroclor-1260	48	Э
37324-23-5 Aroclor-1262	48	⊃
11100-14-4 Aroclor-1268	48	>

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

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CLIENT SAMPLE ID.

> > SDG No.: 0 05/03/05 05/07/05 1585-7 G1706 5 Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) Lab Sample ID: Date Extracted: Dilution Factor: Date Received: Date Analyzed: Lab File ID: CONCENTRATION UNITS: Contract: SAS No.: 5 z (ml) pH: decanted: (Y/N) Sonc (g/mL) 10 (nF) 30.10 EMSL ANALYTICAL Case No.: Soil z Concentrated Extract Volume: Extraction: (SepF/Cont/Sonc) GPC Cleanup: (Y/N) Matrix: (soil/water) Injection Volume: Sample wt/vol: % Moisture: Lab Name: Lab Code:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	ug/Kg	a
0.0674.14.2	40574 44 2		3.4	=
11104-28-2	11104-28-2 Aroclor-1221		34	
11141-16-5	Aroclor-1232		34	ח
53469-21-9	53469-21-9 Aroclor-1242		34	¬
12672-29-6	12672-29-6 Aroclor-1248		34	כ
11097-69-1	11097-69-1 Aroclor-1254		34	ס
11096-82-5	Aroclor-1260		34	⊃
N/A = Not Applicable	ole	*Results Reported on a Dry Weight Basis	ight Basis	
U= Not detected				

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CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:	ct:	5-9	
Lab Code:	Case No.:		SAS No.:	::0	SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1916-3	
Sample wt/vol:	30.10	(g/mL)	6	Lab File ID:	G2260	
% Moisture:	ф	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	(Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	/olume:	10 (ml)		Date Analyzed:	05/27/05	
Injection Volume:	-	(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	Z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	Î Î	>

	Ø
	ug/Kg
CONCENTRATION UNITS:	(ug/L or ug/Kg)
	COMPOUND
	CAS NO.

12674-11-2 Aroclor-1016	34	>
11104-28-2 Aroclor-1221	34	5
11141-16-5 Aroclor-1232	34	ם
53469-21-9 Aroclor-1242	34	n
12672-29-6 Aroclor-1248	34	ם
11097-69-1 Aroclor-1254	34	ם
11096-82-5 Aroclor-1260	34	D
37324-23-5 Aroclor-1262	34	ח
11100-14-4 Aroclor-1268	34	ח
N/A = Not Applicable U= Not detected	*Results Reported on a Dry Weight Basis	

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CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		292	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-8	
Sample wt/vol:	30.03	(g/mL)	б	Lab File ID:	G1707	
% Moisture: 45	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/01/05	
Injection Volume:	~	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	Ha.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	Y/N)	>
CAS NO.	COMPOUND	CON(CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	ø
12674.11.2	Aroclor-1016				61	ח
:	- Aroclor-1221				61	ח
11141-16-5	- Aroclor-1232				61	_
53469-21-9					61	ח
42672-29-6	- Aroclor-1248				61	n
11007-69-1	- Aroclor-1254				61	n
	Arocior-1260				61	ח
		4	7	Day Wolcht	Speic	
N/A = Not Applicable		"Kesi	ilts Keported	*Results Reported on a Dry Weignt basis	odsis	
U= Not detected						

FORM I PEST PCB

CLIENT SAMPLE ID.

5-91 Contract: **EMSL ANALYTICAL** Lab Name:

SAS No.:	Lab Sample ID:
ode: Case No	:: (soil/water)
Lab Cod	Matrix

SDG No.:

Matrix: (soil/water)	Soil		Lab Sample ID:	1916-
Sample wt/vol:	30.03 (g/mL)	Б	Lab File ID:	G226
% Moisture: 45	decanted: (Y/N)	z	Date Received:	

02/03/02	05/27/05
Date Extracted:	Date Analyzed:
Sonc	10 (ml)
Extraction: (SepF/Cont/Sonc)	Concentrated Extract Volume:

% Moisture:

	p: (Y/N)
Dilution Factor:	Sulfur Cleanup:
·	Hd.
1 (uL	z
Injection Volume:	GPC Cleanup: (Y/N)

>	
H ₂ SO ₄ Cleanup: (Y/N)	
H ₂ SO ₄	
- N	
arc cleanup. (1714)	

> >

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	ug/Kg	ø
47674 44 7	Amelor 1046		61	ם
14404.28.2	14404.28.2 Aroclor-1221		61	ס
44444 16.5	4444-46-5 Aroclor-1232		61	ח
E3460 24 0	Aroclor-1242		61	n
42672.20.6	Aroclor-1248		61	ח
44007 60 4			61	ם
11097-09-1	11097-09-1 Aroclor-1260		61	ם
27224 23.5	27224 23 5 Aroclor-1262		61	ם
11100-14-4	44400-14-4 Aroclor-1268		860	
N/A = Not Applicable	able	*Results Reported on a Dry Weight Basis	t Basis	

FORM I PEST PCB

N/A = Not Applicable U= Not detected

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		510	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ľ		Lab Sample ID:	1585-29	
Sample wt/vol:	30.00	(g/mL)	59	Lab File ID:	H1508	
% Moisture: 2	oep _	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	(Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	90/90/90	
Injection Volume:	-	_(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	H.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	~ -	> >
CAS NO.	COMPOUND	CONCI (ng/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	σ

11104-28-2 Aroclor-1221	34	>
	34	ח
11141-16-5 Aroclor-1232	34	ס
53469-21-9 Aroclor-1242	34	ח
12672-29-6 Aroclor-1248	34	ס
11097-69-1 Aroclor-1254	34	ח
11096-82-5 Aroclor-1260	34	ח
N/A = Not Applicable *Res	*Results Reported on a Dry Weight Basis	

FORM I PEST PCB

CLIENT SAMPLE ID.

					700	
Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		200	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-30	
Sample wt/vol:	30.12	(g/mL)	6	Lab File ID:	H1509	
% Moisture: 34	qe	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	-	(uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	z	pH:	Ì	Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	1 1	> >
CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	ø

1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	1000 U	
12574.11-2 Aroclor-1016	44404-28-2 Aroclor-1221	44444-46-5 Aroclor-1232		12572-20-6 Aroclor-1248	14087.69.1 Aroclor-1254	44096.82.5 Aroclor-1260	

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		=	
	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	i		Lab Sample ID:	1585-31	
Sample wt/vol:	30.05	(g/mL)	6	Lab File ID:	H1510	
% Moisture:	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/06/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	Î Î	>
CAS NO.	COMPOUND	CONC (ng/L.	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	G
2 1 1 2 2 4 1 4 2	Arocior-1016				34	ם
	- Aroclor-1221				34	ח
11141-16-5	- Aroclor-1232				34	ח
53469-21-9	- Aroclor-1242				34	ח
12672-29-6	- Aroclor-1248				34	_
11097-69-1					34	ס
11096-82-5					34	D
N/A = Not Applicable U= Not detected		*Resu	Its Reported	*Results Reported on a Dry Weight Basis	isis	

FORM I PEST PCB

CLIENT SAMPLE ID.

A Nome	NA	EMSI ANAI YTICAI		Contract:		SIS	
Lab Code:		Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	ater)	Soil			Lab Sample ID:	1585-32	
Sample wt/vol:	,	30.02	(g/mL)	6	Lab File ID:	H1511	
% Moisture:	25	dec	decanted: (Y/N)	Z	Date Received:		
Extraction: (SepF/Cont/Sonc)	pF/Cont/	(Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Extract V	olume:	10	(ml)	Date Analyzed:	90/90/50	
Injection Volume:	ne:	4-	_(uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	(X/N)	Z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	रे व	>
CAS NO.		COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/Kg	a
17674-11-2		- Aroclor-1016				890	ɔ
11104-28-2		Aroclor-1221				890	ח
11141-16-5	;	Aroclor-1232				890	ם
53469-21-9		Aroclor-1242				890	n
12672-29-6	:	Aroclor-1248				890	ם
11097-69-1		Aroclor-1254				890	ם
11096-82-5	;	Aroclor-1260				890	⊃
						-	-

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM | PEST PCB

CLIENT SAMPLE ID.

512		SDG No.:
	Contract:	SAS No.:
	EMSL ANALYTICAL	Case No .
	Lab Name:	4.

SAS No.:

Lab Code:	Case No.:	SAS No.:	SDGS
Matrix: (soil/water)	Soil	Lab Sample ID:	1585-6
Sample wt/vol:	30.09 (g/mL)	g Lab File ID:	G1704

Date Received:	
z	
decanted: (Y/N)	
-	
% Moisture:	

Extraction: (SepF/Cont/Sonc)	Sonc	Date Extracted:	02/03/0
Concentrated Extract Volume:	10 (ml)	Date Analyzed:	02/01/08

	1 1
-	(Y/N)
Dilution Factor:	Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)
(nL)	Hd
	Z
Injection Volume:	GPC Cleanup: (Y/N)

	ug/Kg
CONCENTRATION UNITS:	(ug/L or ug/Kg)
	COMPOUND
	CAS NO.

300-100-100-100-100-100-100-100-100-100-	34 U	
126/4-11-2 Aroclor-1010	34 U	
11104-26-2 Alociot-1221	34 U	
11141-10-3 Araclor-1242	34 U	
53469-Z1-3 ALOCIOI-12-Z	34 U	_
126/2-29-6 Arocior-12-6	34 U	
11097-69-1 Aroclor-1254	34 U	_
11096-82-5 Alocioi - 1200		
	D Weischt Donie	
N/A = Not Applicable *Results Repo	*Results Reported on a Dry Weight basis	

N/A = Not Applicable U= Not detected

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		512 D	
	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-6	
Sample wt/vol:	30.09	(g/mL)	5	Lab File ID:	G1705	
% Moisture: 24	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	nt/Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/07/05	
Injection Volume:	-	_ (ut.)		Dilution Factor:	1	
GPC Cleanup: (Y/N)	z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	2 3	>
CAS NO.	COMPOUND	CONC (ug/L	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ng/Kg	a

42574 44 2 Aroclor-1016	44	<u></u>
44404 28 2	44	_
4444 46 E A A A A A A A A A A A A A A A A A A	44	כ -
11147-16-5	44	ם -
33469-21-9 Alocior 1248	44	>
120/2-23-0 Alociol (240	44	⊃
11097-09-1 Aroclor-1260	44	ם
0071-101001W C-79-06011		
N/A = Not Applicable	*Results Reported on a Dry Weight Basis	

N/A = Not Applicable U= Not detected

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMS	EMSL ANALYTICAL		Contract:		5-123	
Lab Code:	Case No.:		SAS No.:		SDG No.:	- 1
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1916-2	
Sample wt/vol:	30.09	(g/mL)	6	Lab File ID:	G2259	
% Moisture:	44	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	Cont/Sonc)	Sonc		Date Extracted:	05/03/05	

Dilution Factor: Ä (nL) Z GPC Cleanup: (Y/N) Injection Volume:

>

05/27/05

Date Analyzed:

(m)

10

Concentrated Extract Volume:

Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N)

Ø ug/Kg CONCENTRATION UNITS: (ug/L or ug/Kg) COMPOUND

CAS NO.

	-
42674-41-2 Aroclor-1016	44
44404-28-2 Aroclor-121	44
	44
E3460-21-0 Aroclor-1242	44
	44
	44
	44
	44
	44

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

10

CLIENT SAMPLE ID.

HEET
S DATA S
NALYSIS
PCB A

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		5.13	(3,)
	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ı		Lab Sample ID:	1585-1	
Sample wt/vol:	30.02	(g/mL)	6	Lab File ID:	G1700	
% Moisture:	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	nt/Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	1	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	Z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		> >
CAS NO.	COMPOUND	CONCENTRATI (ug/L or ug/Kg)	CONCENTRATION UNITS: (ug/L or ug/Kg)	NITS:	ng/Kg	ø
					P. C	=

42674-44-9 Arocior-1016		34	 Ð
14104-28-2 Aroclor-1221	h	34	 D
11141-16-5 Aroclor-1232		34	 n
53469-21-9 Aroclor-1242		34	 ח
12672-29-6 Aroclor-1248		34	 ח
141097-69-1 Aroclor-1254		34	 n
11091-03-1 Aroclor-1260		34	 n
	L		
N/A = Not Applicable U= Not detected	*Results Reported or	*Results Reported on a Dry Weight Basis	

FORM I PEST PCB

CLIENT SAMPLE ID.

> > \$131(10. SDG No.: 05/07/05 05/03/05 1585-3 G1702 Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) Lab Sample ID: Date Extracted: Dilution Factor: Date Received: Date Analyzed: Lab File ID: CONCENTRATION UNITS: Contract: SAS No.: 5 Z <u>E</u> PH: decanted: (Y/N) Sonc (g/mL) 10 (EL) **EMSL ANALYTICAL** 30.03 Case No.: Soil Z Concentrated Extract Volume: Extraction: (SepF/Cont/Sonc) GPC Cleanup: (Y/N) 27 Matrix: (soil/water) Injection Volume: Sample wt/vol: % Moisture: Lab Name: Lab Code:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	ng/Kg	0
12674-11-2	Aroclor-1016	•	46	<u> </u>
11104-28-2 Aroclor-1221	- Aroclor-1221	1	46	⊃
11141-16-5 Aroclor-1232	- Aroclor-1232		46	ם
53469-21-9 Aroclor-1242	- Aroclor-1242		46	D
12672-29-6 Aroclor-1248	- Aroclor-1248		46	<u> </u>
11097-69-1 Aroclor-1254	- Aroclor-1254		46)
11096-82-5	Aroclor-1260		46	כ
N/A = Not Applicable		*Results Reported or	*Results Reported on a Dry Weight Basis	

FORM I PEST PCB

CLIENT SAMPLE ID. S / 4 (3')

Lab Name: EMSL	EMSL ANALYTICAL		Contract:		514 (3'	$\overline{}$
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil			Lab Sample ID:	1585-2	
Sample wt/vol:	30.13	(g/mL)	g	Lab File ID:	G1701	
% Moisture:	dec	decanted: (Y/N)	Z	Date Received:		
Extraction: (SepF/Cont/Sonc)	nt/Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	t Volume:	10 (ml)		Date Analyzed:	02/01/05	
Injection Volume:	****	(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	Ħ.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	X	
CAS NO.	COMPOUND	6n)	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg Q	
47674449	Aroclor-1016				34 U	
: :	· - Aroclor-1221				34 U	
11141-16-5	Aroclor-1232					
53469-21-9	Aroclor-1242				34 C	
12672-29-6	- Aroclor-1248				34 U	
11097-69-1	Aroclor-1254					
11096-82-5	Aroclor-1260				34 N	
N/A = Not Applicable		*Re	sults Reported o	*Results Reported on a Dry Weight Basis	sis	
U= Not detected						

FORM I PEST PCB

CLIENT SAMPLE ID.

1D PCB ANALYSIS DATA SHEET

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		S14D(10')	(,0,
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-4	
Sample wt/vol:	30.03	(g/mL)	g	Lab File ID:	G1703	
% Moisture: 36	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/07/05	
Injection Volume:	-	(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	Z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	/N)	>
CAS NO.	COMPOUND	CONC! (ng/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	Ø
4 10074 44 0	Aroclor-1016				52	⊃
	- Aroclor-1221				52	ח
	- Aroclor-1232				52	n
F3460.21-0	- Arocior-1242				52	n
25472-70-6-12-69-60	- Aroclor-1248				52	n
14007-69-1	- Aroclor-1254				52	n
	- Aroclor-1260				52	ם
N/A = Not Applicable U= Not detected		*Result	ts Reported	*Results Reported on a Dry Weight Basis	iasis	

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL AN	EMSL ANALYTICAL		Contract:		5-14 D(10'	(0,
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1916-1	
Sample wt/vol:	30.03	(g/mL)	6	Lab File ID:	G2258	
% Moisture: 36	dec	decanted: (Y/N)	Z	Date Received:		
Extraction: (SepF/Cont/Sonc)	/Sonc)	Sonc		Date Extracted:	05/03/05	
Concentrated Extract Volume:	/olume:	10 (ml)		Date Analyzed:	05/27/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	Z	Hd.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	2 2	>

CAS NO. COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	ng/Kg	σ
Appropriate Annual Appropriate And A	018		52	-

12674-11-2 Aroclor-1016	52	>
11104-28-2 Aroclor-1221	52	ר
11141-16-5 Aroclor-1232	52	ח
53469-21-9 Aroclor-1242	52	n
12672-29-6 Aroclor-1248	52	Ω
11097-69-1 Aroclor-1254	52	¬
11096-82-5 Aroclor-1260	52	n
37394-23-5 Aroclor-1262	52	n
11100-14-4 Aroclor-1268	52	n
N/A = Not Applicable *Res	*Results Reported on a Dry Weight Basis	

FORM I PEST PCB

N/A = Not Applicable U= Not detected

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract		5-15	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1604-11	
Sample wt/vol:	30.08	(g/mL)	D	Lab File ID:	G1769	
% Moisture: 27	qe	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/05/05	
Concentrated Extract Volume:	Volume:	10 (mi)	(10	Date Analyzed:	05/08/05	
Injection Volume:	+	(uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	HG.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	<u> </u>	> >
CAS NO.	COMPOUND	8 3	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	ø

46 46 46 46 46 46 ---- Aroclor-1232 ---- Aroclor-1242 ---- Aroclor-1254 ---- Aroclor-1260 - · Aroclor-1016 - · Aroclor-1221 53469-21-9 - - - 12672-29-6 - - - 11097-69-1 - - - 11096-82-5 - - -11104-28-2 - -11141-16-5 -12674-11-2

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

CLIENT SAMPLE ID.

> Ø SDG No.: 1604-12 05/05/05 05/07/05 H1548 ug/Kg Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) Date Extracted: Dilution Factor: Lab Sample ID: Date Received: Date Analyzed: Lab File ID: CONCENTRATION UNITS: (ug/L or ug/Kg) Contract: SAS No.: Б Z Ē decanted: (Y/N) 품 Sonc (g/mL) 9 (EF) COMPOUND 30.04 **EMSL ANALYTICAL** Case No.: Soil Z Concentrated Extract Volume: Extraction: (SepF/Cont/Sonc) GPC Cleanup: (Y/N) Matrix: (soil/water) Injection Volume: Sample wt/vol: % Moisture: Lab Name: Lab Code: CAS NO.

12674-11-2 Aroclor-1016	41	_
- :	41	ם
;	41	n
53469-21-9 Aroclor-1242	41	D
12672-29-6 Aroclor-1248	41	D
i	41	n
11096-82-5 Aroclor-1260	41	ח
N/A = Not Applicable	*Results Reported on a Dry Weight Basis	
U= Not detected		

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		216	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	T		Lab Sample ID:	1585-27	
Sample wt/vol:	30.00	(g/mL)	ō	Lab File ID:	H1506	
% Moisture: 24	pep	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/08/02	
njection Volume:	-	_(uL)		Dilution Factor:	-	
SPC Cleanup: (Y/N)	z	PH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		> >
AS NO.	COMPOUND	CONCE (ng/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg	a

		CONCENTRATION UNITS:	ö		
CAS NO.	COMPOUND	(ug/L or ug/Kg)	ug/Kg	0	Ø
					8
12674-11-2 Aroclor-1016	Aroclor-1016		44		>
11104-28-2 Aroclor-1221	Aroclor-1221		44		n
11141-16-5	Aroclor-1232		44		ח
53469-21-9	Aroclor-1242		44		כ
12672-29-6	Aroclor-1248		44		כ
11097-69-1 Aroclor-1254	Aroclor-1254		44		⊃
11096-82-5	Aroclor-1260		44		n

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis NOTE: Other aroclors may be present;however, no pattern match can be made.

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL	EMSL ANALYTICAL		Contract:		S16 D	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ř		Lab Sample ID:	1585-28	
Sample wt/vol:	30.02	(g/mL)	6	Lab File ID:	H1507	
% Moisture: 57	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	it/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	92/06/05	
Injection Volume:	-	_(uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	z	PH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	1 1	>
CAS NO.	COMPOUND	CONCE (ug/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg	a

N/A = Not Applicable U= Not detected

------- Aroclor-1232 ------ Aroclor-1242 ------ Aroclor-1248 ------ Aroclor-1254

Aroclor-1016 Aroclor-1221

12674-11-2 - - -

*Results Reported on a -- Dry Weight Basis

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1500 1500 1500 1500 1500

22

FORM I PEST PCB

CLIENT SAMPLE ID.

					2	
Lab Name: EMSL	EMSL ANALYTICAL		Contract:		- 7	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-25	
Sample wt/vol:	30.02	(g/mL)	g	Lab File ID:	H1488	
% Moisture: 5	ō	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	nt/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	-	(nF)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	Hd:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	2 c	> >
		CNCC	CONCENTRATION LINITS:	. SLINI		

- Aroclor-1016 - Aroclor-1242 - Aroclor-1248 - Aroclor-1254 - Aroclor-1260 - Aroclor-1260	35 35 35 35 35 *Results Reported on a Dry Weight Basis	CAS NO.	COMPOUND	(ug/L or ug/Kg)	ng/Kg	a
- Aroclor-1221 - Aroclor-1248 - Aroclor-1260 - Aroclor-1260 - Aroclor-1260 - Aroclor-1260 - Aroclor-1260	Aroclor-1221 Aroclor-1242 Aroclor-1254 Aroclor-1254 Aroclor-1254 Aroclor-1260 able *Results Reported on a Dry Weight Basis	12674-11-2	- Aroclor-1016		35	ס
Aroclor-1232 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1260 Aroclor-1260	Aroclor-1232 Aroclor-1248 Aroclor-1254 Aroclor-1260 able *Results Reported on a Dry Weight Basis	11104-28-2	- Aroclor-1221		35	_
Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1260	Aroclor-1242 35 35 35 35 35 35 35 35 35 35 35 35 35	11141-16-5	- Aroclor-1232		35	ח
- Aroclor-1254 - Aroclor-1260 - Aroclor-1260 - Aroclor-1260	Aroclor-1254 35 35 Aroclor-1260 35 35 able *Results Reported on a Dry Weight Basis	53469-21-9	- Aroclor-1242		35	D
- Aroclor-1260	able **Results Reported on a Dry Weight Basis	12672-29-6	- Aroclor-1248		35	>
- Aroclor-1260	able *Results Reported on a Dry Weight Basis	11097-69-1	- Aroclor-1254		35	<u></u>
	able	11096-82-5	- Aroclor-1260		35	ם
	apie	olderiland talk - All		*Breside Bonocke	wht Basis	

FORM I PEST PCB

CLIENT SAMPLE ID.

20 00 00 00 00	110	9/10
DATA SHEET		1000

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		8118	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	1		Lab Sample ID:	1585-26	
Sample wt/vol:	30.11	(g/mL)	6	Lab File ID:	H1489	
% Moisture: 35	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	02/06/05	
Injection Volume:	-	_(uL)		Dilution Factor:	20	
GPC Cleanup: (Y/N)	z	PH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		> >
CAS NO.	COMPOUND	CONCENTRATI (ug/L or ug/Kg)	CONCENTRATION UNITS: (ug/L or ug/Kg)	UNITS:	ug/Kg	a
12674-11-2 Aroclor-1016	- Aroclor-1016				1000	ם
11104-28-2	Aroclor-1221				1000	כ
:	- Aroclor-1232				1000	ח
:	Aroclor-1242				1000	כ
1	Aroclor-1248				1000	ח
11097-69-1 Aroclor-1254	- Aroclor-1254				1000	D
11096-82-5 Aroclor-1260	- Aroclor-1260				1000	ח

FORM I PEST PCB

*Results Reported on a -- Dry Weight Basis

N/A = Not Applicable U= Not detected

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		81S	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ı		Lab Sample ID:	1585-23	
Sample wt/vol:	30.02	(g/mL)	5	Lab File ID:	H1539	
% Moisture:	dec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	t/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/07/05	
Injection Volume:	-	_(uL)		Dilution Factor:	10	
GPC Cleanup: (Y/N)	z	H.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		> >
CAS NO.	COMPOUND	CON (ug/l	CONCENTRATION UNITS: (ug/L or ug/Kg)	NITS:	ng/Kg	a

12674-11-2 Aroclor-1016		360	=
11104-28-2 Aroclor-1221		360) ⊃
11141-16-5 Aroclor-1232		360	כ
53469-21-9 Aroclor-1242		3100	
12672-29-6 Aroclor-1248		360	ם
11097-69-1 Aroclor-1254		360	כ
11096-82-5 Aroclor-1260		360	D
N/A = Not Applicable	*Results Reported on a Dry Weight Basis	Basis	

FORM I PEST PCB

CLIENT SAMPLE ID.

	-		į	L		[
Lab Name: EMSL	EMSL ANALYTICAL		Contract:		818	
Lab Code:	Case No.:		SAS No.:		SDG No.:	1
Matrix: (soil/water)	Soil	Î		Lab Sample ID:	1585-24	
Sample wt/vol:	30.03	(g/mL)	5	Lab File ID:	H1540	
% Moisture: 7	oep	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	nt/Sonc)	Sonc		Date Extracted:	05/04/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/07/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	100	
GPC Cleanup: (Y/N)	z	Ħ.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	> >	
CAS NO.	COMPOUND	CONC (ng/L o	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg Q	

12674-11-2 Aroclor-1016	3600	-
11104-28-2 Aroclor-1221	3600	ח
11141-16-5 Aroclor-1232	3600	כ
53469-21-9 Aroclor-1242	33000	
12672-29-6 Aroclor-1248	3600	<u></u>
11097-69-1 1254	3600	כ
11096-82-5 Aroclor-1260	3600)
N/A = Not Applicable	*Results Reported on a Dry Weight Basis	
U= Not detected		

FORM I PEST PCB

	DATA SHEET
10	ANALYSIS
	PCB

> CLIENT SAMPLE ID. SDG No.: 9 1585-17 05/04/05 05/06/05 H1484 5 Lab Sample ID: Date Extracted: Dilution Factor: Date Received: Date Analyzed: Lab File ID: Contract: SAS No.: 8 Z Ē decanted: (Y/N) H. Sonc (g/m/) 10 (uL) **EMSL ANALYTICAL** 30.01 Case No.: Soil Z Concentrated Extract Volume: Extraction: (SepF/Cont/Sonc) Matrix: (soil/water)

Sample wt/vol:

Lab Name:

Lab Code:

% Moisture:

Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) GPC Cleanup: (Y/N)

Injection Volume:

CONCENTRATION UNITS:

(ug/L or ug/Kg)

COMPOUND

CAS NO.

Ø

ug/Kg

ココココココ 36 36 36 36 36 36 36 36 36 ------ Aroclor-1248 ------ Aroclor-1254 Aroclor-1016 Aroclor-1232 Aroclor-1242 Aroclor-1221 12672-29-6 - . 11097-69-1 - . 11096-82-5 -12674-11-2 11104-28-2 11141-16-5 53469-21-9

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name:	EMSL ANALYTICAL	Contract:	SIAD
Lab Code:	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/wat	water) Soil	Lab Sample ID:	1585-18

H1485 Lab File ID: g Z decanted: (Y/N) (g/mL) 30.04 22 Sample wt/vol:

05/04/05 Date Extracted: Date Received: Sonc Extraction: (SepF/Cont/Sonc) % Moisture:

05/06/05 20 Dilution Factor: Date Analyzed: Ē 10 (EF ~ Concentrated Extract Volume: Injection Volume:

Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) H. Z GPC Cleanup: (Y/N)

> CONCENTRATION UNITS:

(ug/L or ug/Kg)

COMPOUND

CAS NO.

O

ug/Kg

ココココココ 850 850 850 850 850 850 Aroclor-1248 Aroclor-1254 Aroclor-1260 Aroclor-1016 Aroclor-1232 Aroclor-1242 Aroclor-1221 11141-16-5 -53469-21-9 -12672-29-6 -11097-69-1 -12674-11-2 11096-82-5 -

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

CLIENT SAMPLE ID.

Lab Name: EMSL	EMSL ANALYTICAL		Contract:		530	
Lab Code:	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Soil	ı		Lab Sample ID:	1604-9	
Sample wt/vol:	30.09	(g/mL)	D	Lab File ID:	H1520	
% Moisture: 11	qec	decanted: (Y/N)	Z	Date Received:		
Extraction: (SepF/Cont/Sonc)	it/Sonc)	Sonc		Date Extracted:	05/05/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/06/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	, ,	> >
CAS NO.	COMPOUND	CON (ug/l	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ug/Kg	œ

	• • • • • • • • • • • • • • • • • • • •		
12674-11-2 Aroclor-1016		37	⊃
11104-28-2 Aroclor-1221		37	ם
•		37	D
53469-21-9 Aroclor-1242		37	ם
12672-29-6 Aroclor-1248		37	ם
;		37	כ
11096-82-5 Aroclor-1260	and the second s	37	כ
N/A = Not Applicable	*Results Reported on a Dry Weight Basis	Dry Weight Basis	
U= Not detected		•	

FORM I PEST PCB

CLIENT SAMPLE ID.

-	<	.1
	2)
		Contract:
		EMSL ANALYTICAL

Lab Name:

SDG	1604-10
SAS No.:	Lab Sample ID:
Case No.:	Soil
Lab Code:	Matrix: (soil/water)

SDG No.:

H1604

Lab File ID:

5

(g/mL)

30.07

Sample wt/vol:

Date Received: z decanted: (Y/N) 36 % Moisture:

05/05/05 05/10/05 Date Extracted: Date Analyzed: (III) Sonc 10 Concentrated Extract Volume: Extraction: (SepF/Cont/Sonc)

Dilution Factor: (uL) Injection Volume:

Sulfur Cleanup: (Y/N) H₂SO₄ Cleanup: (Y/N) Ħ Z GPC Cleanup: (Y/N)

Ø ug/Kg CONCENTRATION UNITS: (ug/L or ug/Kg) COMPOUND CAS NO.

12674-11-2 Aroclor-1016	52	>
11104-28-2 Aroclor-1221	52	n
11141-16-5 Aroclor-1232	52	ח
53469-21-9 Aroclor-1242	52	כ
12672-29-6 Aroclor-1248	52	n
11097-69-1 Aroclor-1254	52	ם
11096-82-5 Aroclor-1260	52	ם

N/A = Not Applicable U= Not detected

*Results Reported on a -- Dry Weight Basis

FORM I PEST PCB

EMSL Analytical Inc.

SHEET ANALYSIS DATA PESTICIDE/PCB ORGANICS

		Customer Sample#:	4274-1	SR-1	
Lab Name:	EMSL Analytical)	
EMSL Sample ID:	010504274-0001	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Lab File ID:	G4706.D	Sample Matrix:	Soils		
Instrument ID:	9	Sampling Date:	10/24/05		
Analyst:	1	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/26/05 20:14:00	4:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30 G		
% Moisture:	5	Dilution Factor:	-		
H:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082				
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	ď
12674-11-2	Aroclor-1016		35		Э
11104-28-2	Aroclor-1221	A THE STREET WAS ASSESSED. THE PRINCE OF THE	35		n
11141-16-5	Aroclor-1232	Market and a second sec	35		n
53469-21-9	Aroclor-1242		35)
12672-29-6	Aroclor-1248		35		ח
11097-69-1	Aroclor-1254	3 Maria Cara Cara Cara Cara Cara Cara Cara	35		Э
11096-82-5	Aroclor-1260		35		D
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	in method blank tlon.				

EMSL Analytical Inc.

SHEET DATA PESTICIDE/PCB ORGANICS ANALYSIS

		Customer Sample#:	4274-2 SB-11	SR-IN
Lab Name:	EMSL Analytical			
EMSL Sample ID:	010504274-0002	Project:	SB-1 thru 5(soil PCB)	I PCB)
Lab File ID:	G4707.D	Sample Matrix:	Soils	
Instrument ID:	9	Sampling Date:	10/24/05	
Analyst:	1	Date Extracted:	10/25/05	
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/26/05 20:48:00	00
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30 G	
% Moisture:	10	Dilution Factor:	-	
PH:		Concentrated Extract Vol:	10 (ml)	
GPC Cleanup(Y/N):	z	Injection Volume:	1 (ul)	
Extraction Type:	Sonc	Sulfur Cleanup:	z	
Method:	SW846 8081/8082			
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. Q
12674-11-2	Aroclor-1016		37	
11104-28-2	Aroclor-1221		37	5
11141-16-5	Aroclor-1232		37	ס
53469-21-9	Aroclor-1242		37	ח
12672-29-6	Aroclor-1248		37	7
11097-69-1	Aroclor-1254		37	>
11096-82-5	Aroclor-1260		37	כ
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	n method blank ion.			

		Customer Sample#:	4274-3	4274-3 SR 7	
Lab Name:	EMSL Analytical)	į
EMSL Sample ID:	010504274-0003	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Lab File ID:	G4708.D	Sample Matrix:	Soils		
Instrument ID:	9	Sampling Date:	10/24/05		
Analyst:	2	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/26/05 21:21:00	1:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30 G		
% Moisture:	16	Dilution Factor:	-		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082			# A A A A A A A A A A A A A A A A A A A	
CAS NO	O	сомроимр	Report Limit (µg/Kg)	CONC. (µg/Kg)	g
12674-11-2	Aroclor-1016	THE STATE OF THE PARTY OF THE P	40		כ
11104-28-2	Aroclor-1221		40		כ
11141-16-5	Aroclor-1232		40		כ
53469-21-9	Aroclor-1242	1	40		Э
12672-29-6	Aroclor-1248		40		D
11097-69-1	Aroclor-1254		40		ח
11096-82-5	Aroclor-1260		40)
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	in method blank ion.				

SHEET PESTICIDE/PCB ORGANICS ANALYSIS DATA

		Customer Sample#:	4274-4	4274-4 58-2 A	Y
Lab Name:	EMSL Analytical)
EMSL Sample ID:	010504274-0004	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Lab File ID:	G4709.D	Sample Matrix:	Soils		
Instrument ID:	9	Sampling Date:	10/24/05		
Analyst:	7	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/26/05 21:55:00	92:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30.01 G		
% Moisture:	13	Dilution Factor:	-		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082				
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	σ
12674-11-2	Aroclor-1016	Maria (Maria	38		ס
11104-28-2	Aroclor-1221		38		D
11141-16-5	Aroclor-1232		38		D
53469-21-9	Aroclor-1242		38		Э
12672-29-6	Aroclor-1248		38		Э
11097-69-1	Aroclor-1254	THE RESIDENCE OF THE PROPERTY	38		כ
11096-82-5	Aroclor-1260		38		ס
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	in method blank tion.			-	

Lab Name: EMSL Analytical EMSL Sample ID: 010504274-0005 Pro Lab File ID: G4710.D Sar Instrument ID: G Sar Analyst: TL Dat GC Column: CLPest I (0.32 mm) Ans GC Column 2: CLPest II (0.32 mm) Ans Moisture: 7 Dilu PH: Cor				
SL Sample ID: 010504274-0005 File ID: G4710.D G4710.D G Ilyst: TL Column: CLPest I (0.32 mm) Column 2: CLPest II (0.32 mm) Column 3: CLPest II (0.32 mm) CLPEST II (
File ID: G4710.D G4710.D G G G G G G G G G	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Inst: Column: CLPest I (0.32 mm) CLPest II (0.32 mm) CLPest II (0.32 mm)	Sample Matrix:	Soils		
llyst: TL Column: CLPest I (0.32 mm) Column 2: CLPest II (0.32 mm) Ioisture: 7	Sampling Date:	10/24/05		
Column: CLPest I (0.32 mm) Column 2: CLPest II (0.32 mm) Ioisture: 7	Date Extracted:	10/25/05		
Column 2: CLPest II (0.32 mm) loisture: 7	Analysis Date	10/26/05 22:29:00	00:6	
loisture: 7	Sample wt/vol:	30.01 G		
	Dilution Factor:	-		
	Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N): N Inje	Injection Volume:	1 (ul)		
on Type: Sonc	Sulfur Cleanup:	z		
Method: SW846 8081/8082				
CAS NO COMPOUND	OUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	g
12674-11-2 Aroclor-1016		36		5
11104-28-2 Aroclor-1221	The state of the s	36		Э
11141-16-5 Aroclor-1232	A CONTRACT OF THE PROPERTY OF	36		ם
53469-21-9 Aroclor-1242	The second state of the se	180	2900	10
12672-29-6 Aroclor-1248		36		>
11097-69-1 Aroclor-1254		36		>
11096-82-5 Aroclor-1260	1	36	49	

		Customer Sample#:	4274-6	SB-30	_
Lab Name:	EMSL Analytical				
EMSL Sample ID:	010504274-0006	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Lab File ID:	G4711.D	Sample Matrix:	Soils		
Instrument ID:	O	Sampling Date:	10/24/05		
Analyst:	긛	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/26/05 23:02:00	05:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30.01 G		
% Moisture:	7	Dilution Factor:	-		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082				
CAS NO	0	сомроиир	Report Limit (µg/Kg)	CONC. (µg/Kg)	G
12674-11-2	Aroclor-1016		36		0
11104-28-2	Aroclor-1221		36		n
11141-16-5	Aroclor-1232	White first car is a manual organization and an analysis of the second and and an analysis of the second and an analysis of th	36		n
53469-21-9	Aroclor-1242		360	7800	10
12672-29-6	Aroclor-1248		36		ס
11097-69-1	Aroclor-1254		36		Э
11096-82-5	Aroclor-1260		36	140	
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. D1= Primary Column: G4748.D (Analysis Confirm Column: G4748.D (Analysis	in method blank lion. 748.D (Analysis Time: 10//	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. D1= Primary Column: G4748.D (Analysis Time: 10/27/05 23:50:00, Dil. Factor= 10) Confirm Column: G4748.D (Analysis Time: 10/27/05 23:50:00			

		Customer Sample#:	4274-7	584	
Lab Name:	EMSL Analytical				
EMSL Sample ID:	010504274-0007	Project:	SB-1 thru 5(soil PCB)	I PCB)	
Lab File ID:	G4712.D	Sample Matrix:	Soils		THE PERSON NAMED IN COLUMN NAM
Instrument ID:	g	Sampling Date:	10/24/05		
Analyst:	7	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/26/05 23:36:00	00:	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30 G		
% Moisture:	7	Dilution Factor:	-		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082				
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
12674-11-2	Aroclor-1016	TANKS OF THE PROPERTY OF THE P	36		n
11104-28-2	Aroclor-1221		36		ס
11141-16-5	Aroclor-1232		98		D
53469-21-9	Aroclor-1242		36		D
12672-29-6	Aroclor-1248		36		D
11097-69-1	Aroclor-1254		36		כ
11096-82-5	Aroclor-1260		36		ב
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value U = Estimated Concentration.	in method blank				

		Customer Sample#:	4274-8	SB 4 D	\nabla
Lab Name:	EMSL Analytical			•	
EMSL Sample ID:	010504274-0008	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Lab File ID:	G4713.D	Sample Matrix:	Soils		
Instrument ID:	9	Sampling Date:	10/24/05		
Analyst:	-	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/27/05 00:09:00	9:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30 G		
% Moisture:	7	Dilution Factor:	-		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082		The second secon		
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
12674-11-2	Aroclor-1016		36)
11104-28-2	Aroclor-1221		36		ס
11141-16-5	Aroclor-1232	The second secon	36		ס
53469-21-9	Aroclor-1242	1	36		Э
12672-29-6	Aroclor-1248		36)
11097-69-1	Aroclor-1254		36		ס
11096-82-5	Aroclor-1260	To the second control of the second control	36		כו
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	in method blank ion.				

SHEET PESTICIDE/PCB ORGANICS ANALYSIS DATA

	Minimum			
		Customer Sample#:	4274-9 SR-S	4
Lab Name:	EMSL Analytical		3)
EMSL Sample ID:	010504274-0009	Project:	SB-1 thru 5(soil PCB)	
Lab File ID:	G4714.D	Sample Matrix:	Soils	
Instrument ID:	ŋ	Sampling Date:	10/24/05	***************************************
Analyst:	근	Date Extracted:	10/25/05	
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/27/05 00:43:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30.02 G	
% Moisture:	8	Dilution Factor:	-	
PH:		Concentrated Extract Vol:	10 (ml)	
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)	
Extraction Type:	Sonc	Sulfur Cleanup:	Z	
Method:	SW846 8081/8082			
CAS NO	0	COMPOUND	Report CONC. (µg/Kg)	G
12674-11-2	Aroclor-1016		36	D
11104-28-2	Aroclor-1221		36	Э
11141-16-5	Aroclor-1232		36	ח
	The state of the s			

Aroclor-1260 Aroclor-1254

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22

36

36 36 36

Aroclor-1232 Aroclor-1242 Aroclor-1248

> 53469-21-9 12672-29-6 11097-69-1 11096-82-5

Qualifier Definitions
U = Undetected
B = Compound detected in method blank
E = Estimated value
J = Estimated Concentration.

		Customer Sample#:	4274-10	4274-10 SB-SA	61
Lab Name:	EMSL Analytical))
EMSL Sample ID:	010504274-0010	Project:	SB-1 thru 5(soil PCB)	oil PCB)	
Lab File ID:	G4715.D	Sample Matrix:	Soils		
Instrument ID:	g	Sampling Date:	10/24/05		
Analyst:	2	Date Extracted:	10/25/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	10/27/05 01:17:00	7:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30.01 G		
% Moisture:	13	Dilution Factor:	_		
H:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	z		
Method:	SW846 8081/8082				
CAS NO	0	сомроимр	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
12674-11-2	Aroclor-1016		38		0
11104-28-2	Aroclor-1221		38		_
11141-16-5	Aroclor-1232	1 1 1 1 1 1 1 1 1 1	38		Э
53469-21-9	Aroclor-1242		38		כ
12672-29-6	Aroclor-1248		38		כ
11097-69-1	Aroclor-1254		38		ס
11096-82-5	Aroclor-1260		38		n
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	In method blank ion.				

EMSL Analytical Inc.

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET

Lab Name: EMSL Sample ID: Lab File ID: Instrument ID: Analyst: GC Golumn: GC Golumn 2: % Moisture: PH: GPC Cleanup(Y/N): Extraction Type:: Method:	EMSL Anaytical Inc 010504838-0001 H44433.D HP-H TR CLPest I (0.32 mm) CLPest II (0.32 mm) 8 8 N Sonc SW846 8081/8082	Project: Sample Matrix: Sample Matrix: Sampling Date: Date Extracted: Analysis Date Sample wt/vol: Dilution Factor: Concentrated Extract Vol: Injection Volume: Sulfur Cleanup:	Soils 11/16/05 11/22/05 30.09 G 1 (ml) N	72.00	
CAS NO	03	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	Œ
12674-11-2	Aroclor-1016		36		n
11104-28-2	Aroclor-1221		36		ח
11141-16-5	Araclor-1232		36		n
53469-21-9	Aroclor-1242		36		n
12672-29-6	Araclar-1248		36		
11097-69-1	Araçlar-1254		36		ח
11096-82-5	Aroclor-1260		36		n
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. D = Dilution	in method blank ion.			-	
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1 of 1

EMSL Analytical Inc.

EMSL Anaytical Inc 010504638-0002			Customer Sample#;	SB-6-8		
H4434.D Sample Matrix; Solis	Lab Name: EMSL Sample ID:	EMSL Anaytical Inc 010504838-0002	Project:	United Hand	uar 14	
HP-H Sampling Date: 11/18/105 11/2005	Lab File ID:	H4434.D	Sample Matrix:	Soils		
IR	Assistant IU:	HP-H	Sampling Date:	11/16/05		
CLPest (0.32 mm)	Alialyst	ا ا	Date Extracted:	11/22/05		
CL Pest II (0.32 mm) Sample wtvol: 30.09 G	GC Column;	CLPest I (0.32 mm)	Analysis Date	11/24/05 02:	53:00	
N Injection Volume: Solution Factor; 1 0 (ml) 1 0 0 0 0 0 0 0 0 0	פר כטוחשת א:	CLPest II (0,32 mm)	Sample wt/vol:	30.09 G		
Sonce Concentrated Extract Vol. 10 (ml)	% Moisture;	20	Dilution Factor;	1		
Sonc Sulfur Gleanup: Y Sonc Sulfur Gleanup: Y	FH:		Concentrated Extract Vol.	10 (ml)		
SW846 8081/8082 Suriar Creanup: Y	Extraction Type:	Sons	Injection Volume:	1 (ul)		
Report CONC. Limit CONC. Limit (µg/Kg) (µg	Method:	SW846 8081/8082	- Suring Greatings:	-		
Aroclor-1016 42 Aroclor-1221 42 Aroclor-1232 42 Aroclor-1248 42 Aroclor-1254 42 Aroclor-1254 42 Aroclor-1260 42 Aroclor-1260 42	CAS NO	ō	OMPOUND	Report Limit (µq/Kq)	CONC. (µg/Kg)	σ
Araclor-1221 42 Araclor-1232 42 Araclor-1248 42 Araclor-1254 42 Araclor-1254 42 Araclor-1260 42 Araclor-1260 42	12674-11-2	Araclar-1016		42		
Aroclor-1232 42 Aroclor-1248 42 Aroclor-1254 42 Aroclor-1254 42 Aroclor-1260 42 cted in method blank 42	1104-28-2	Araclor-1221		42		=
Aroclor-1242 42 180 Aroclor-1254 42 180 Aroclor-1250 42 42 Aroclor-1260 42 42 cted in method blank 42 42	1141-16-5	Aroclor-1232		42	70.00	
Aroclor-1248 42 180 Aroclor-1254 42 42 Aroclor-1260 42 42 cted in method blank 42 42	3469-21-9	Araclar-1242		42		,
Aroclor-1254 Aroclor-1260 Arotlor-1260 cted in method blank	2672-29-6	Aroclor-1248		42	180	
Aroclor-1260 42 cted in method blank .	1097-69-1	Aroclor-1254		42		10
cted in method blank	1096-82-5	Aroclor-1260		42		, =
	tualifier Definitions = Undetected = Corripound detected is = Estimated value = Estimated Corrected:	n method blank .				ı

EMSL Analytical Inc.

		/			
	,	Customar Sample#;	SB-7-3		
Lab Name:	EMSL Anaytical Inc				
EMSL Sample ID:	010504838-0003	Project	United Hangar 14	18r 14	
Lab File ID:	H4442.D	Sample Matrix:	Soils		
Instrument ID:	HP-H	Sampling Date:	11/16/08		
Analyst:	TR	Date Extracted:	11/22/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	11/24/05 07:37:00	37:00	
GC Column 2:	CLPest II (0,32 mm)	Sample wt/vol:	30.07 G	, P. C.	
% Moisture:	15	Dilution Factor:	1		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sono	Sulfur Cleanup:	, ,		
Method:	SW846 8081/8082				
CAS NO		COMPOUND	Report Limit	CONC.	a
12674-11-2	Aroclor-1016		(Rushi)		
11104-28-2	Araclar-1221		39		,
11141-18-5	Aroclor-1232	THE STATE OF THE S	39	VA.	ם
53469-21-9	Araclar-1242		39)
12672-29-6	Aroclor-1248		39		ס
11097-69-1	Aroclor-1254	The same of the sa	39		ם
1096-82-5	Aroclor-1260		39		n
Qualifier Definitions J = Undetected S = Compound detected in method blank E = Estimated value Estimated Concentration. D = Dilution	n method blank on.				
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EMSL Analytical Inc.

Lab Name:			0-1-00		
Chicago Communication of the C	EMSL Anaytical Inc				
ENOT Sample ID:	010504838-0004	Project	United Hangar 14	ar 14	
Lab File ID:	H4443.D	Sample Matrix:	Soils		
Instrument ID:	HP-H	Sampiling Date:	11/16/05		
Analyst:	TR	Date Extracted:	11/22/05		
GC Column:	CLPest I (0,32 mm)	Analysis Date	11/24/05 08:12:00	12:00	ļ
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vol:	30.14 G		
% Moisture:	11	Dilution Factor:	1		
PH:		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume;	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	*		
Method:	SW846 8081/8082	:			
CAS NO	5	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
12674-11-2	Araclor-1016		37		n
11104-28-2	Aroclor-1221		37		D
11141-18-5	Araclor-1232	700	37		ס
53489-21-9	Araclor-1242		37		Э
12672-29-6	Aroclor-1248		37		ח
11097-69-1	Aroclor-1254		37		10
11096-82-5	Araclor-1260		37		ח
Qualifier Definitions U = Undetected U = Compound detected in method blank E = Estimated value U = Estimated Concentration. U = Dilution	n method blank				

EMSL Analytical Inc.

		- The state of the	6		
		Custoffier Sample#:	0E-8-3		
Lab Name:	EMSL Anaytical Inc				
EMSL Sample ID;	010504838-0005	Project:	United Hangar 14	ar 14	
Lab File ID:	H4444.D	Sample Matrix:	Soils		
Instrument ID;	HP-H	Sampling Date:	11/16/05		
Analyst:	TR	Date Extracted:	11/22/05		
GC Column:	CLPest I (0.32 mm)	Analysis Date	11/24/05 08:48:00	48:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wt/vof:	30.06 G		100
% Moisture:	15	Dilution Factor:	-		
H .		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	<u></u>		
Method:	SW846 8081/8082				
			:		
			Report	CONC	
CAS NO	ט	COMPOUND	Limit (µg/Kg)	(ра/Ка)	a
12674-11-2	Aroclor-1016		39		; o
11104-28-2	Aroclar-1221		39		P
11141-18-5	Aroclor-1232		39		2
53469-21-9	Aroclor-1242		39		ח
12672-29-6	Aroclor-1248		39		n
1.1097-69-1	Aroclor-1254		39		n
11096-82-5	Aroclor-1260		39		ח
Qualifier Definitions U = Undetected U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. D = Dilution	n method blank on.	70,000		7	

		Customer Sample#:	SB-8-8		
Lab Name: EMSL Sample ID; Lab File ID: Instrument ID; Analyst: GC Column: GC Column: PK: Moisture: PH:	EMSL Anaytical Inc 010504838-0006 H4445.D HP-H TR CLPest I (0.32 mm) 12	Project: Sample Matrix: Sampling Date: Date Extracted: Analysis Date Sample wtvo!: Dilution Factor: Concentrated Extract Vo);	United Hangar 14 Soils 11/16/05 11/22/05 11/24/05 09:23:00 30.12 G	Jar 14 23:00	
Extraction Type: Method:	Sonc SW846 8081/8082	Sulfur Gleanup:	/m/ >		
CAS NO	ö	сомроимь	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
12674-11-2	Arocior-1016		38		ח
11104-28-2	Arodor-1221		38)
11141-16-5	Araclar-1232		38		n
53469-21-9	Aroclor-1242		38		n
12672-29-6	Araclar-1248		38		ח
11097-69-1	Aroclor-1254		38		n
11096-82-5	Aroclor-1260		38		n
Qualifier Definitions J = Undetected B = Compound detected in method blank E = Estimated value E = Estimated Concentration.	n method blank on.				

		Customer Sample#;	SB-9-3		
Lab Name;	EMSL Anaytical Inc				
EMSL Sample ID:	010504838-0007	Project;	United Hangar 14	ar 14	
Lab File ID:	H4446.D	Sample Matrix:	Soils		
Instrument ID:	н-н	Sampling Date:	11/16/05		
Analyst:	TR	Date Extracted:	11/22/05		
GC Column;	CLPest I (0.32 mm)	Analysis Date	11/24/05 09:59:00	59:00	
GC Column 2:	CLPest II (0.32 mm)	Sample wtivol:	30.17 G		
% Moisture:	4	Dilution Factor:	-		
PH;		Concentrated Extract Vol:	10 (ml)		
GPC Cleanup(Y/N):	2	Injection Volume:	1 (ul)		
Extraction Type:	Sonc	Sulfur Cleanup:	>		
Method:	SW846 8081/8082	and the state of t			
CAS NO	ĕ	COMPOUND	Report Limit (ug/Kg)	CONC. (µg/Kg)	a
12674-11-2	Aroclor-1016		36		ח
11104-28-2	Araclor-1221	The same and the s	35		ח
11141-16-5	Aroclor-1232		35		٦
53469-21-9	Aroclor-1242		35		Э
12672-29-6	Araclar-1248		35		ח
11097-69-1	Araclor-1254		35		Э
11096-82-5	Aroclor-1260		35		
Qualiffer Definitions U = Undetected B = Compound detected in method blank E = Estimated value U = Estimated Concentration.	method blank			\$	
D = Dilution					

EMSL Analytical Inc.

		Customer Sample#:	S.B.O.R		
Lab Name: EMSL Sample ID: Lab File ID: Instrument ID: Analyst: GC Column: GC Column 2: % Moisture: PH: GPC Cleanup(Y/N): Extraction Type:	EMSL Anaytical Inc 010504838-0008 H4447.D HP-H TR CLPest I (0.32 mm) CLPest II (0.32 mm) 15 N Sonc Sonc	Project: Sample Matrix: Sampling Date: Data Extracted: Analysis Date Sample wtvol: Dijution Factor: Concentrated Extract Vol: Injection Volume: Sulfur Cleanup:	United Hangar 14 Soils 11/16/05 11/22/05 11/24/05 10:34:00 30.1 G 1 (ul) Y	ar 14 34:00	
CAS NO	ō	сомроимъ	Report Limit (µg/Kg)	CONG. (µg/Kg)	a
12674-11-2	Aroclor-1018		39		ם
11104-28-2	Aroclor-1221		39		ח
11141-16-5	Aroclor-1232		39		כ
	Aroclor-1242		39		n
12672-29-6	Aroclor-1248		39		ח
11097-69-1	Araclor-1254		38		n
11096-82-5	Arador-1260 ·	44.	39		ח
Qualifier Definitions U = Undertected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. D = Dilution	n method blank on.				

		Customer Sample#:	S11 P(S11 PCB/VOC/SVOC	SVOC
Lab Name:	EMSL ANALYTICAL	1			
EMSL Sample ID:	010501585-0031	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03018.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 21:39:00	19:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wovol: Extract Vol	10000 (11)	Alignot Analyzed:	100 pt		
Dilution Factor:	1	Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	~-		
CAS NO	8	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	σ
75-71-8	Dichlorodifluoromethane		510		٦
74-87-3	Chloromethane		510		כ
75-01-4	Vinyl chloride		510		ס
74-83-9	Bromomethane		510		Э
75-00-3	Chloroethane		510		ס
75-69-4	Trichlorofluoromethane		510		ב
75-35-4	1,1-Dichloroethene		250		ם
67-64-1	Acetone		510		n
75-15-0	Carbon disulfide		250		n
75-09-2	Methylene chloride		250		ے ا
156-60-5	trans-1,2-Dichloroethene		250		ם
1634-04-4	Methyl-tert butyl ether		250		ם
75-34-3	1,1-Dichloroethane		250		ם
594-20-7	2,2-Dichloropropane		250		ס
156-59-2	cis-1,2-Dichloroethene		250		ס
78-93-3	2-Butanone		510		כ
74-97-1	Bromochloromethane		250		כ
67-66-3	Chloroform		250		ס
71-55-6	1,1,1-Trichloroethane		250		ס
56-23-1	Carbon tetrachloride		250		٦
563-58-6	1,1-Dichloropropene		250		ח
71-43-2	Benzene		250		ם
107-06-2	1,2-Dichloroethane		250		ס
79-01-6	Trichloroethene		250		Э
78-87-1	1,2-Dichloropropane		250		ם
74-95-3	Dibromomethane		250		ח
75-27-4	Bromodichloromethane		250		ם
10061-01-1	cis-1,3-Dichloropropene		250		D
1.08-10-1	4-Methyl-2-pentanone		510		ח
108-88-3	Toluene		250		D
10061-02-6	trans-1,3-Dichloropropene		250		ם
10.00 4	1 1 2 Trichloroethane		030		-

				011 PCB/VOC/9VOC	200
Lab Name:	EMSL ANALYTICAL	ı			
EMSL Sample ID:	010501585-0031	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03018.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 21:39:00	39:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	-		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		250		D
142-28-9	1,3-Dichloropropane		250		ם
591-78-6	2-Hexanone		510		n
124-48-1	Dibromochloromethane		250		D
106-93-4	1,2-Dibromoethane		250		כ
108-90-7	Chlorobenzene		250		ח
630-20-6	1,1,1,2-Tetrachloroethane		250		D
100-41-4	Ethylbenzene		250		כ
108-38-3	Xylene (para & meta)		250		ב כ
95-47-6	Xylene (Ortho)		250		ס
100-42-1	Styrene		250		ב
75-25-2	Bromoform		250		ם
98-82-8	Isopropylbenzene		250) D
108-86-1	Bromobenzene		250		ח
79-34-1	1,1,2,2-Tetrachloroethane		250		ח
96-18-4	1,2,3-Trichloropropane		250		ם
103-65-1	n-Propylbenzene		250		Э
110-57-6	trans-1,4-Dichloro-2-butene	9.	250		D
95-49-8	2-Chlorotoluene		250		ס
106-43-4	4-Chlorotoluene		250		ס
108-67-8	1,3,5-Trimethylbenzene		250		n
9-90-86	tert-Butylbenzene		250		Э
95-63-6	1,2,4-Trimethylbenzene		250		ס
135-98-8	sec-Butylbenzene		250		D
541-73-1	1,3-Dichlorobenzene		250		ס
9-87-6	4-Isopropyltoluene		250		ס
106-46-7	1,4-Dichlorobenzene		250		ס
95-50-1	1,2-Dichlorobenzene		250))
.04-51-8	n-Butylbenzene		250		Э
67-72-1	Hexachloroethane		250		D
96-12-8	1,2-Dibromo-3-chloropropane	ine	250		D

		Customer Sample#:	S11 P(S11 PCB/VOC/SVOC)OC
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0031	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	
Lab File ID:	V03018.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 21:39:00	9:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	_	Method:	SW846 8260B	В	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	-		
			1		
CAS NO		COMPOUND	Limit (µg/Kg)	CONC. (µg/Kg)	ø
87-68-3	Hexachlorobutadiene		250		n
91-20-3	Naphthalene		250		ם כ
87-61-6	1,2,3-Trichlorobenzene		250		ח
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	l Quantitation Level			

		Customer Sample#:	S11 D		
Lab Name:	EMSL ANALYTICAL)		
EMSL Sample ID:	010501585-0032	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03019.D	Sample Matrix:	Soil Medium/High	Hiah	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:		Analysis Date	5/4/2005 22:24:00	24:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 pl.		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Sample Container:	Jar (SW-846 5035)	Moisture(%)	25	מ	
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	σ
75-71-8	Dichlorodifluoromethane		670		כ
74-87-3	Chloromethane		670		ס
75-01-4	Vinyl chloride		029		ם
74-83-9	Bromomethane		029		ס
75-00-3	Chloroethane		029		ס
75-69-4	Trichlorofluoromethane		029		D
75-35-4	1,1-Dichloroethene		330		ס
67-64-1	Acetone		029		ס
75-15-0	Carbon disulfide		330		n
75-09-2	Methylene chloride		330		ס
156-60-5	trans-1,2-Dichloroethene		330		כ
1634-04-4	Methyl-tert butyl ether		330		n
75-34-3	1,1-Dichloroethane		330		ח
594-20-7	2,2-Dichloropropane		330		ח
156-59-2	cis-1,2-Dichloroethene	The state of the s	330		כ
78-93-3	2-Butanone		029		ח
74-97-1	Bromochloromethane		330		ס
67-66-3	Chloroform		330		ח
71-55-6	1,1,1-Trichloroethane		330		ח
56-23-1	Carbon tetrachloride		330		ח
563-58-6	1,1-Dichloropropene		330		ם
71-43-2	Benzene		330		ס
107-06-2	1,2-Dichloroethane		330		ס
79-01-6	Trichloroethene		330	360	
78-87-1	1,2-Dichloropropane		330		n
74-95-3	Dibromomethane		330		ח
75-27-4	Bromodichloromethane		330		ס
10061-01-1	cis-1,3-Dichloropropene		330		כ
19-10-1	4-Methyl-2-pentanone		029		ם
108-88-3	Toluene		330		כ
10061-02-6	trans-1,3-Dichloropropene		330		ח
70.00-1	1.1.2-Trichloroethane		330		=

		Customer Sample#:	S11 D		
Lab Name:	EMSL ANALYTICAL	1			
EMSL Sample ID:	010501585-0032	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03019.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 22:24:00	24:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10.6	Nominal Amount:	100 pL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Sample Container:	Jar (SW-846 5035)	Moisture(%)	25		
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		330		ס
142-28-9	1,3-Dichloropropane		330		ח
591-78-6	2-Hexanone		029		ס
124-48-1	Dibromochloromethane		330		ח
106-93-4	1,2-Dibromoethane		330		n
108-90-7	Chlorobenzene		330		ח
630-20-6	1,1,1,2-Tetrachloroethane		330		ס
100-41-4	Ethylbenzene		330		D
108-38-3	Xylene (para & meta)		330		כ
95-47-6	Xylene (Ortho)		330		ס
100-42-1	Styrene		330		ב
75-25-2	Вготобогт		330		כ
98-82-8	Isopropylbenzene		330		כ
108-86-1	Bromobenzene		330		ם
79-34-1	11,1,2,2-Tetrachloroethane		330		ס
96-18-4	1,2,3-Trichloropropane		330	- 100100	כ
103-65-1	n-Propylbenzene		330		ס
110-57-6	trans-1,4-Dichloro-2-butene	Je.	330		ס
95-49-8	2-Chlorotoluene		330		D
106-43-4	4-Chlorotoluene		330		ם
108-67-8	1,3,5-Trimethylbenzene		330		כ
98-06-6	tert-Butylbenzene		330		ח
95-63-6	1,2,4-Trimethylbenzene		330		ם
135-98-8	sec-Butylbenzene		330		כ
541-73-1	1,3-Dichlorobenzene		330		כ
99-87-6	4-Isopropyltoluene		330		ם
106-46-7	1,4-Dichlorobenzene		330		כ
95-50-1	1,2-Dichlorobenzene		330		כ
04-51-8	n-Butylbenzene		330		ח
67-72-1	Hexachloroethane		330		ח
96-12-8	1,2-Dibromo-3-chloropropane	ane	330		n
			000		

		Customer Sample#:	S11 D		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0032	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	*
Lab File ID:	V03019.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 22:24:00	24:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	25		
O N		CNICOMO	Report	(cylon) ONCO	C
CAS NO		ON DO LINO	(µg/Kg)	(Bußt)	ÿ
87-68-3	Hexachlorobutadiene		330		>
91-20-3	Naphthalene		330		ס
87-61-6	1,2,3-Trichlorobenzene		330		כ
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	I Quantitation Level			

		Customer Sample#:	13 PC	13 PCB//OC/S//OC	
Lab Name:	EMSL ANALYTICAL		2		
EMSL Sample ID:	010501585-0001	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V02964.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 20:54:00	94:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (nL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	a	
	(2000 040-040) 180	Moistare(/e)			
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	G
75-71-8	Dichlorodifluoromethane		510		D
74-87-3	Chloromethane		510		ח
75-01-4	Vinyl chloride		510		ח
74-83-9	Bromomethane		510		ס
75-00-3	Chloroethane		510		ם
75-69-4	Trichlorofluoromethane		510		כ
75-35-4	1,1-Dichloroethene		250		ח
67-64-1	Acetone		510		כ
75-15-0	Carbon disulfide		250		ם
75-09-2	Methylene chloride		250		D
156-60-5	trans-1,2-Dichloroethene		250		ס
1634-04-4	Methyl-tert butyl ether		250		D
75-34-3	1,1-Dichloroethane		250		ס
594-20-7	2,2-Dichloropropane		250	-	ס
156-59-2	cis-1,2-Dichloroethene		250		ח
78-93-3	2-Butanone		510		D
74-97-1	Bromochloromethane		250		О
67-66-3	Chloroform		250		D
71-55-6	1,1,1-Trichloroethane		250		כ
56-23-1	Carbon tetrachloride		250		כ
563-58-6	1,1-Dichloropropene		250		כ
71-43-2	Benzene		250		Э
107-06-2	1,2-Dichloroethane		250		D
79-01-6	Trichloroethene		250		ס
78-87-1	1,2-Dichloropropane		250		>
74-95-3	Dibromomethane		250		כ
75-27-4	Bromodichloromethane		250		n
10061-01-1	cis-1,3-Dichloropropene		250		ח
108-10-1	4-Methyl-2-pentanone		510		ם
108-88-3	Toluene		250		כ
10061-02-6	trans-1,3-Dichloropropene		250		⊃
79-00-1	1,1,2-Trichloroethane		250		=

	IA CITY IA INV	Customer Sample#:	13 PC	13 PCB/VOC/SVOC	/OC
Lab Name:	040601685 0001	-	i di la di	A 1000 C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,
EMSL Sample ID:	1000-686106010	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V02964.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005	7.00	
Analyst:	DTY 502 2 /0 25 mm)	Analysis Date	MED	24:00	
Sample wt/vol:	10 G	Nominal Amount:	100		
Extract Vol.	10000 (nL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	В	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	-		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		250		ח
142-28-9	1,3-Dichloropropane		250		ס
591-78-6	2-Hexanone		510		ס
124-48-1	Dibromochloromethane		250		<u>כ</u>
106-93-4	1,2-Dibromoethane		250		כ
108-90-7	Chlorobenzene		250		n
630-20-6	1,1,1,2-Tetrachloroethane	T.	250		D
100-41-4	Ethylbenzene		250		ח
108-38-3	Xylene (para & meta)		250		D
95-47-6	Xylene (Ortho)		250		n
100-42-1	Styrene		250		כ
75-25-2	Bromoform		250		כ
98-82-8	Isopropylbenzene		250		n
108-86-1	Bromobenzene		250		כ
79-34-1	1,1,2,2-Tetrachloroethane		250		ے ا
96-18-4	1,2,3-Trichloropropane		250		ח
103-65-1	n-Propylbenzene		250		כ
110-57-6	trans-1,4-Dichloro-2-butene	le .	250		ס
95-49-8	2-Chlorotoluene		250		n
106-43-4	4-Chlorotoluene		250		ם
108-67-8	1,3,5-Trimethylbenzene		250		ר
9-90-86	tert-Butylbenzene		250		D
95-63-6	11,2,4-Trimethylbenzene		250		ם
135-98-8	sec-Butylbenzene		250		0
541-73-1	1,3-Dichlorobenzene		250		D
99-87-6	4-Isopropyltoluene		250		Э
106-46-7	1,4-Dichlorobenzene		250		ם
95-50-1	1,2-Dichlorobenzene		250		ס
04-51-8	n-Butylbenzene		250		ח
67-72-1	Hexachloroethane		250		D
96-12-8	1,2-Dibromo-3-chloropropane	ane	250		n
120-82-1	1,2,4-Trichlorobenzene		250		=

		Customer Sample#:	13 PC	13 PCB/VOC/SVOC	00
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0001	Project:	Newark Libe	Newark Liberty Airport/Hangar 14	
Lab File ID:	V02964.D	Sample Matrix:	Soil Medium/High	/High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 20:54:00	54:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	-	Method:	SW846 8260B	38	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	-		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	σ
87-68-3	Hexachlorobutadiene		250		ס
91-20-3	Naphthalene		250		ם
87-61-6	1,2,3-Trichlorobenzene		250	-	ם
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifler Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	Quantitation Level			

l ah Namo.	EMSI ANA INTOA	Customer Sample#:	13D P	13D PCB/VOC/SVOC	3000
EMSL Sample ID:	010501585-0003	Project:	Newark Libe	Newark Liberty Airport/Hangar 14	4
	0.00000	Some of Matrice	Coil Mardinan Link	. Hall	
Instrument ID:	GCMS VOA#6	Sampling Date:	4/29/2005	Libra	
Analyet:	AGS.	Analysis Date	5/2/2006 22:22:00	00.00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED	00.00	
Sample wt/vol:	10 G	Nominal Amount:	100 nl		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	-	Method:	SW846 8260B	B	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	27		
CAS NO	8	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
75-71-8	Dichlorodifluoromethane		680		ס
74-87-3	Chloromethane		089		ח
75-01-4	Vinyl chloride		089		ס
74-83-9	Bromomethane		089		ס
75-00-3	Chloroethane		089		ס
75-69-4	Trichlorofluoromethane		089		n
75-35-4	1,1-Dichloroethene		340		n
67-64-1	Acetone		089		ח
75-15-0	Carbon disulfide		340		ם
75-09-2	Methylene chloride		340		כ
156-60-5	trans-1,2-Dichloroethene		340		ח
1634-04-4	Methyl-tert butyl ether		340		ם
75-34-3	1,1-Dichloroethane		340		ם
594-20-7	2,2-Dichloropropane		340		ח
156-59-2	cis-1,2-Dichloroethene		340		ס
78-93-3	2-Butanone		089		ח
74-97-1	Bromochloromethane		340		ח
67-66-3	Chloroform		340		ס
71-55-6	1,1,1-Trichloroethane		340		כ
56-23-1	Carbon tetrachloride		340		ח
563-58-6	1,1-Dichloropropene		340		n
71-43-2	Benzene		340		ם
107-06-2	1,2-Dichloroethane		340		ח
79-01-6	Trichloroethene		340		ס
78-87-1	1,2-Dichloropropane		340		ס
74-95-3	Dibromomethane		340		ח
75-27-4	Bromodichloromethane		340		כ
10061-01-1	cis-1,3-Dichloropropene		340		ם
08-10-1	4-Methyl-2-pentanone		089		ם
108-88-3	Toluene		340		ח
10061-02-6	trans-1,3-Dichloropropene		340		n
79-00-1	1,1,2-Trichloroethane		340		=

		Customer Sample#:	13D P	13D PCB/VOC/SVOC	SVC
Lab Name:	EMSL ANALYTICAL	-			
EMSL Sample ID:	010501585-0003	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V02966.D	Sample Matrix:	Soil Medium/High	Hich	
instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 22:23:00	23:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (nl)		
Dilution Factor:		Method:	SW846 8260B	18	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	27		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	σ
127-18-4	Tetrachloroethene		340		ס
142-28-9	1,3-Dichloropropane		340		ס
591-78-6	2-Hexanone		089		Э
124-48-1	Dibromochloromethane		340		ס
106-93-4	1,2-Dibromoethane		340		ס
108-90-7	Chlorobenzene		340		ח
630-20-6	1,1,1,2-Tetrachloroethane		340		כ
100-41-4	Ethylbenzene		340		n
108-38-3	Xylene (para & meta)		340		ח
95-47-6	Xylene (Ortho)		340		כ
100-42-1	Styrene		340		ח
75-25-2	Bromoform		340		ח
98-82-8	Isopropylbenzene		340		ח
108-86-1	Bromobenzene		340		ח
79-34-1	1,1,2,2-Tetrachloroethane		340		ם
96-18-4	1,2,3-Trichloropropane		340		ח
103-65-1	n-Propylbenzene		340		ח
110-57-6	trans-1,4-Dichloro-2-butene	O.	340		n
95-49-8	2-Chlorotoluene		340		n
106-43-4	4-Chlorotoluene		340		ח
108-67-8	1,3,5-Trimethylbenzene		340		n
9-90-86	tert-Butylbenzene		340		n
95-63-6	1,2,4-Trimethylbenzene		340		ם
135-98-8	sec-Butylbenzene		340		D
541-73-1	1,3-Dichlorobenzene		340		ס
9-87-6	4-Isopropyltoluene		340		ח
106-46-7	1,4-Dichlorobenzene		340		n
95-50-1	1,2-Dichlorobenzene		340		D
94-51-8	n-Butylbenzene		340		ח
67-72-1	Hexachloroethane		340		ס
96-12-8	1,2-Dibromo-3-chloropropane	Je.	340		D
120-82-1	1.2.4-Trichlorobenzene		340		-

		Customer Sample#:	13D P(13D PCB/VOC/SVOC	C
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0003	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	
Lab File ID:	V02966.D	Sample Matrix:	Soil Medium/High	High	
instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		Ţ-
Analyst:	SRK	Analysis Date	5/2/2005 22:23:00	3:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		-
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	_	Method:	SW846 8260B		
Sample Container:	Jar (SW-846 5035)	Moisture(%)	27		_
CAS NO		COMPOUND	Report Limit (ug/Kg)	CONC. (µg/Kg)	
87-68-3	Hexachlorobutadiene		340	n	
91-20-3	Naphthalene		340	n	T
87-61-6	1,2,3-Trichlorobenzene		340	D	Ţ-
Qualifler Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifler Definitions U = Undefected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	Quantitation Level			Τ – – –

VOLATILE ORGANICS ANALYSIS DATA SHEET

		customer sample#:	7 7 0	14 FCB/VOC/SVOC	ري 2 2
Lab Name:	EMSL ANALYTICAL	1			
EMSL Sample ID:	010501585-0002	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V02965.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 21:39:00	39:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vof:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	В	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	2		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	ď
75-71-8	Dichlorodifluoromethane	A THE TAX AND A STREET OF THE	510		ס
74-87-3	Chloromethane		510		D
75-01-4	Vinyl chloride		510		n
74-83-9	Bromomethane		510		ס
75-00-3	Chloroethane		510		О
75-69-4	Trichlorofluoromethane		510		D
75-35-4	1,1-Dichloroethene		260		ס
67-64-1	Acetone		510		ס
75-15-0	Carbon disulfide		260		Э
75-09-2	Methylene chloride		260		Э
156-60-5	trans-1,2-Dichloroethene		260		n
1634-04-4	Methyl-tert butyl ether		260		ס
75-34-3	1,1-Dichloroethane		260		D
594-20-7	2,2-Dichloropropane		260		ס
156-59-2	cis-1,2-Dichloroethene		260		<u></u>
78-93-3	2-Butanone		510		ס
74-97-1	Bromochloromethane		260		ס
67-66-3	Chloroform		260		>
71-55-6	1,1,1-Trichloroethane		260		D
56-23-1	Carbon tetrachloride		260		כ
563-58-6	1,1-Dichloropropene		260		D
71-43-2	Benzene		260		ם
107-06-2	1,2-Dichloroethane		260		D
79-01-6	Trichloroethene		260		ח
78-87-1	1,2-Dichloropropane		260		ח
74-95-3	Dibromomethane		260		n
75-27-4	Bromodichloromethane		260		ם
10061-01-1	cis-1,3-Dichloropropene		260		ם
108-10-1	4-Methyl-2-pentanone		510		D
108-88-3	Toluene		260		ח
10061-02-6	trans-1,3-Dichloropropene		260		n
70.00 1	1 1 2 Trichloroothana				

FORM1--VOLATILE

Printed: 05/06/05 11:35:51 AM SampleList: 050205V ERM: C:\HPCHEM\1\8260ERMS\8260BTCL.erm

		Customer Sample#:	14 PC	14 PCBMOC/SMOC	VOC.
Lab Name:	EMSL ANALYTICAL)
EMSL Sample ID:	010501585-0002	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V02965.D	Sample Matrix:	Soil Medium/High	Ligh	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 21:39:00	39:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (nl)		
Dilution Factor:		Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	2		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		260		D
142-28-9	1,3-Dichloropropane		260		ס
591-78-6	2-Hexanone		510		n
124-48-1	Dibromochloromethane	THE REAL PROPERTY OF THE PROPE	260		כ
106-93-4	1,2-Dibromoethane		260		ח
108-90-7	Chlorobenzene		260		n
630-20-6	1,1,1,2-Tetrachloroethane		260		ם
100-41-4	Ethylbenzene		260		D.
108-38-3	Xylene (para & meta)		260		n
95-47-6	Xylene (Ortho)		260		ם
100-42-1	Styrene		260		D
75-25-2	Bromoform		260		n
98-82-8	Isopropylbenzene		260		ס
108-86-1	Bromobenzene		260		⊃
79-34-1	1,1,2,2-Tetrachloroethane		260		ס
96-18-4	1,2,3-Trichloropropane		260		ח
103-65-1	n-Propylbenzene		260		ס
110-57-6	trans-1,4-Dichloro-2-butene	ā	260		D
95-49-8	2-Chlorotoluene		260		ס
106-43-4	4-Chlorotoluene	No. (1) and the second	260		כ
108-67-8	1,3,5-Trimethylbenzene		260		ס
9-90-86	tert-Butylbenzene		260		כ
95-63-6	1,2,4-Trimethylbenzene		260		ס
135-98-8	sec-Butylbenzene		260		כ
541-73-1	1,3-Dichlorobenzene		260		Э
99-87-6	4-Isopropyltoluene		260		ם
106-46-7	1,4-Dichlorobenzene		260		Э
95-50-1	1,2-Dichlorobenzene		260		ם
104-51-8	n-Butylbenzene		260		כ
67-72-1	Hexachloroethane		260		כ
96-12-8	1,2-Dibromo-3-chloropropane	ine	260		ם
120-82-1	1.2.4-Trichlorobenzene		260		=

		Customer Sample#:	14 PC	14 PCB/VOC/SVOC
Lab Name:	EMSL ANALYTICAL			
EMSL Sample ID:	010501585-0002	Project:	Newark Libe	Newark Liberty Airport/Hangar 14
Lab File ID:	V02965.D	Sample Matrix:	Soil Medium/High	High
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005	
Analyst:	SRK	Analysis Date	5/2/2005 21:39:00	39:00
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED	
Sample wt/vol:	10 G	Nominal Amount:	100 µL	
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)	
Dilution Factor:	-	Method:	SW846 8260B	8
Sample Container:	Jar (SW-846 5035)	Moisture(%)	2	
CAS NO	O	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)
87-68-3	Hexachlorobutadiene		260	D
91-20-3	Naphthalene		260	n
87-61-6	1,2,3-Trichlorobenzene		260	Ω
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	Quantitation Level		

Lab Name: EMSL Sample ID: Lab File ID: Instrument ID: Analyst: GC Column:	EMSL ANALYTICAL)
EMSL Sample ID: Lab File ID: Instrument ID: Analyst: GC Column:					
Lab File ID: Instrument ID: Analyst: GC Column:	010501585-0004	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Instrument ID: Analyst: GC Column:	V02967.D	Sample Matrix:	Soil Medium/High	Hiah	
Analyst: GC Column:	GC/MS VOA#6	Sampling Date:	4/29/2005		
GC Column:	SRK	Analysis Date	5/2/2005 23:08:00	08:00	
	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wtvol:	8.03 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Sample Container:	Jar (SW-846 5035)	Moisture(%)	36	מ	
CAS NO	0	COMPOUND	Report	CONC. (µg/Kg)	σ
25 74 0	0.00		(µg/Kg)		
0-17-07	Dicniorodifluoromethane		970		5
74-87-3	Chloromethane		970)
75-01-4	Vinyl chloride		920		כ
74-83-9	Bromomethane		970		ם
75-00-3	Chloroethane		970		ם
75-69-4	Trichlorofluoromethane		920		Э
75-35-4	1,1-Dichloroethene		490		D
67-64-1	Acetone		970		ס
75-15-0	Carbon disulfide		490		ס
75-09-2	Methylene chloride		490		ס
156-60-5	trans-1,2-Dichloroethene		490		D
1634-04-4	Methyl-tert butyl ether		490		ס
75-34-3	1,1-Dichloroethane		490		ם
594-20-7	2,2-Dichloropropane		490		D
156-59-2	cis-1,2-Dichloroethene		490		D
78-93-3	2-Butanone		970		D
74-97-1	Bromochloromethane		490		D
67-66-3	Chloroform		490		D
71-55-6	1,1,1-Trichloroethane		490		n
56-23-1	Carbon tetrachloride		490		D
563-58-6	1,1-Dichloropropene		490		D
71-43-2	Benzene		490		n
107-06-2	1,2-Dichloroethane		490		D
79-01-6	Trichloroethene		490		Э
78-87-1	1,2-Dichloropropane		490		D
74-95-3	Dibromomethane		490		D
75-27-4	Bromodichloromethane		490		ח
10061-01-1	cis-1,3-Dichloropropene		490		ם
08-10-1	4-Methyl-2-pentanone		970		Э
108-88-3	Toluene		490		٥
2-6	trans-1,3-Dichloropropene		490		D
79-00-1	1,1,2-Trichloroethane		490		ס

SHEET VOLATILE ORGANICS ANALYSIS DATA

		Customer Sample#:	14D P(14D PCB/VOC/SVOC	SVC
Lab Name:	EMSL ANALYTICAL	1			
EMSL Sample ID:	010501585-0004	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V02967.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 23:08:00	08:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	8.03 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL.)	Aliquot Analyzed:	100 (ul)		
Sample Container:	Jar (SW-846 5035)	Moisture(%)	36		
CAS NO	6	COMPOUND	Report Limit (ua/Ka)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		490		⊃
142-28-9	1,3-Dichloropropane		490		٦
591-78-6	2-Hexanone		970		ס
124-48-1	Dibromochloromethane		490		Э
106-93-4	1,2-Dibromoethane		490		Э
108-90-7	Chlorobenzene	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE	490		D
630-20-6	1,1,1,2-Tetrachloroethane		490		ס
100-41-4	Ethylbenzene		490		ח
108-38-3	Xylene (para & meta)		490		כו
95-47-6	Xylene (Ortho)		490		ח
100-42-1	Styrene		490		כ
75-25-2	Bromoform		490		ם
98-82-8	Isopropylbenzene		490		ם
108-86-1	Bromobenzene		490		ח
79-34-1	1,1,2,2-Tetrachloroethane		490		ס
96-18-4	1,2,3-Trichloropropane		490		כ
103-65-1	n-Propylbenzene		490		Э
110-57-6	trans-1,4-Dichloro-2-butene	0	490		Э
95-49-8	2-Chlorotoluene		490		D
106-43-4	4-Chlorotoluene		490		D
108-67-8	1,3,5-Trimethylbenzene		490		D
98-06-6	tert-Butylbenzene		490		ם
95-63-6	1,2,4-Trimethylbenzene		490		n
135-98-8	sec-Butylbenzene		490		ח
541-73-1	1,3-Dichlorobenzene		490		D
9-87-6	4-Isopropyltoluene		490		ח
106-46-7	1,4-Dichlorobenzene		490		n
95-50-1	1,2-Dichlorobenzene		490		D
04-51-8	n-Butylbenzene		490		ח
67-72-1	Hexachloroethane		490		D
96-12-8	1,2-Dibromo-3-chloropropane	ЭС	490		D
120-82-1	1,2,4-Trichlorobenzene		490		כ

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:)	つつ つつつ つつ こうさ))
	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0004	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	
Lab File ID:	V02967.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/2/2005 23:08:00	00:80	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol: 8	8.03 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	36		
			Report		
CAS NO	Ö	COMPOUND	Limit (µg/Kg)	CONC. (µg/Kg)	σ
87-68-3	Hexachlorobutadiene		490		n
91-20-3	Naphthalene		490		D
87-61-6	1,2,3-Trichlorobenzene		490		ے ا
Qualifler Definitions U = Undetected B = Compound detected in method blank E = Estimated value Concentration Detected below Practical Quantitation Level	nethod blank Detected below Practical	Orantitation Level			

FORM1--VOLATILE

		Customer Sample#:	S18 VOC	OC	
Lab Name:	EMSL ANALYTICAL		•)	
EMSL Sample ID:	010501585-0019	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03020.D	Sample Matrix:	Soil Medium/High	High	
instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 23:08:00	08:00	
Sample wt/vol:	10 G	Level (low/med):	MED		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	-	Method:	SW846 8260B	В	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	9		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
75-71-8	Dichlorodifluoromethane		530		n
74-87-3	Chloromethane		530		ם
75-01-4	Vinyl chloride		530		ח
74-83-9	Bromomethane		530		ס
75-00-3	Chloroethane		530		כ
75-69-4	Trichlorofluoromethane		530		Э
75-35-4	1,1-Dichloroethene		270		Э
67-64-1	Acetone		530		ס
75-15-0	Carbon disulfide		270		כ
75-09-2	Methylene chloride		270		כ
156-60-5	trans-1,2-Dichloroethene		270		ר
1634-04-4	Methyl-tert butyl ether		270		D
75-34-3	1,1-Dichloroethane		270		D
594-20-7	2,2-Dichloropropane		270		כ
156-59-2	cis-1,2-Dichloroethene		270		כ
78-93-3	2-Butanone		530		ס
74-97-1	Bromochloromethane		270	_	n
67-66-3	Chloroform		270		ח
71-55-6	1,1,1-Trichloroethane		270		ח
56-23-1	Carbon tetrachloride		270		כ
563-58-6	1,1-Dichloropropene		270		ר
71-43-2	Benzene		270		0
107-06-2	1,2-Dichloroethane		270		2
79-01-6	Trichloroethene		270		כו
78-87-1	1,2-Dichloropropane		270		ם
74-95-3	Dibromomethane		270		ם
75-27-4	Bromodichloromethane		270		D
10061-01-1	cis-1,3-Dichloropropene		270		D
08-10-1	4-Methyl-2-pentanone		530		D
108-88-3	Toluene		270		D
10061-02-6	trans-1,3-Dichloropropene		270		ס
79-00-1	1.1.2-Trichloroethane		070		-

lah Name.	FMS! ANA! VTICA!	customer sample#:	200 816	2	
EMSI Sample IO.	040504585-0040	-	100	:	
EMOL Sample ID.	6100-606106010	Project:	Newark Libe	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03020.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 23:08:00	08:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vof:	10 G	Nominal Amount:	100 µL		8
Extract Vol.	10000 (nL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	-	Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	9		
CAS NO	0	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		270		ס
142-28-9	1,3-Dichloropropane		270		ם
591-78-6	2-Hexanone		530		n
124-48-1	Dibromochloromethane		270		ס
106-93-4	1,2-Dibromoethane		270		ח
108-90-7	Chlorobenzene		270		כ
630-20-6	1,1,1,2-Tetrachloroethane		270		כ
100-41-4	Ethylbenzene		270		כ
108-38-3	Xylene (para & meta)		270		ס
95-47-6	Xylene (Ortho)		270		ח
100-42-1	Styrene		270		ח
75-25-2	Bromoform		270		ח
98-82-8	Isopropylbenzene		270		ח
108-86-1	Bromobenzene		270		ח
79-34-1	1,1,2,2-Tetrachloroethane		270		ח
96-18-4	1,2,3-Trichloropropane		270		כ
103-65-1	n-Propylbenzene		270		ח
110-57-6	trans-1,4-Dichloro-2-butene		270		ח
95-49-8	2-Chlorotoluene		270		n
106-43-4	4-Chlorotoluene		270		ב
108-67-8	1,3,5-Trimethylbenzene		270		ס
9-90-86	tert-Butylbenzene		270		Э
95-63-6	1,2,4-Trimethylbenzene		270		ם
135-98-8	sec-Butylbenzene		270		n
541-73-1	1,3-Dichlorobenzene		270		כ
99-87-6	4-Isopropyltoluene		270		כ
106-46-7	1,4-Dichlorobenzene		270		ח
95-50-1	1,2-Dichlorobenzene		270		ס
04-51-8	n-Butylbenzene		270		ח
67-72-1	Hexachloroethane		270		n
96-12-8	1,2-Dibromo-3-chloropropane	le l	270		כ
7 00 007	4 O 4 Trichlorohoropour				

		Customer Sample#:	S18 VOC	00	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0019	Project:	Newark Libe	Newark Liberty Airport/Hangar 14	
Lab File ID:	V03020.D	Sample Matrix:	Soil Medium/High	/High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	SRK	Analysis Date	5/4/2005 23:08:00	08:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 pt		
Extract Vol.	10000 (uL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:		Method:	SW846 8260B	98	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	9		
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
87-68-3	Hexachlorobutadiene		270		ם
91-20-3	Naphthalene		270		ס
87-61-6	1,2,3-Trichlorobenzene		270		ם
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value	Qualifier Definitions	ol Orantitation Level			

SHEET VOLATILE ORGANICS ANALYSIS DATA

	*	Customer Sample#:	S18 D VOC	VOC	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0020	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03040.D	Sample Matrix	Soil Modium/Linh	4417	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	KW	Analysis Date	5/6/2005 01:43:00	13:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (nL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor: Sample Container:	1 Jar (SW-846 5035)	Method: Moisture(%)	SW846 8260B	8	
			too		
CAS NO	8	COMPOUND	Kepon Limit (µg/Kg)	CONC. (µg/Kg)	σ
75-71-8	Dichlorodifluoromethane		580		n
74-87-3	Chloromethane		580		ס
75-01-4	Vinyl chloride		580		n
74-83-9	Bromomethane		580		ס
75-00-3	Chloroethane		580		ם
75-69-4	Trichlorofluoromethane		280		n
75-35-4	1,1-Dichloroethene		290		ס
67-64-1	Acetone		580		ם
75-15-0	Carbon disulfide		290		כ
75-09-2	Methylene chloride		290		כ
156-60-5	trans-1,2-Dichloroethene		290		ס
1634-04-4	Methyl-tert butyl ether		290		ס
75-34-3	1,1-Dichloroethane		290		ם
594-20-7	2,2-Dichloropropane		290		ס
156-59-2	cis-1,2-Dichloroethene		290		כ
78-93-3	2-Butanone		280		ס
74-97-1	Bromochloromethane		290		ח
67-66-3	Chloroform		1 290		ח
71-55-6	1,1,1-Trichloroethane		290		ס
56-23-1	Carbon tetrachloride		290		ס
563-58-6	1,1-Dichloropropene		290		ח
71-43-2	Benzene		290		ח
107-06-2	1,2-Dichloroethane		290		ם כ
79-01-6	Trichloroethene		290		ס
78-87-1	1,2-Dichloropropane		290		ח
74-95-3	Dibromomethane		290		ח
75-27-4	Bromodichloromethane		290		ב
10061-01-1	cis-1,3-Dichloropropene		290		ח
108-10-1	4-Methyl-2-pentanone		280		ם
08-88-3	Toluene		290		ס
10061-02-6	trans-1,3-Dichloropropene		290		ח
				The second secon	

FORM1--VOLATILE

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VOLATILE ORGANICS ANALYSIS DATA SHEET

))	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0020	Project:	Newark Libert	Newark Liberty Airport/Hangar 14	4
Lab File ID:	V03040.D	Sample Matrix:	Soil Medium/High	łigh	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	KW	Analysis Date	5/6/2005 01:43:00	3:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wovol: Extract Vol	10000	Nominal Amount:	100 pt		
Extract vol.	יייייייייייייייייייייייייייייייייייייי	Aliquot Analyzed:	100 (ul)		
Sample Container:	Jar (SW-846 5035)	Moisture(%)	14		
CAS NO		COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	a
127-18-4	Tetrachloroethene		290		5
142-28-9	1,3-Dichloropropane		290		⊃
591-78-6	2-Hexanone		580		5
124-48-1	Dibromochloromethane		290		Э
106-93-4	1,2-Dibromoethane		290		n
108-90-7	Chlorobenzene		290		П
330-20-6	1,1,1,2-Tetrachloroethane		290		-
100-41-4	Ethylbenzene		290		ס
108-38-3	Xylene (para & meta)		290		ס
95-47-6	Xylene (Ortho)	A STATE OF THE PARTY OF THE PAR	290		D
100-42-1	Styrene		290		ס
75-25-2	Bromoform		290		ס
98-82-8	Isopropylbenzene		290	140	7
108-86-1	Bromobenzene		290		כ
79-34-1	1,1,2,2-Tetrachloroethane		290		כ
96-18-4	1,2,3-Trichloropropane		290		ם
103-65-1	n-Propylbenzene	The same of the sa	290		ח
110-57-6	trans-1,4-Dichloro-2-butene	9	290		ס
95-49-8	2-Chlorotoluene		290		ח
106-43-4	4-Chlorotoluene		290		٦
108-67-8	1,3,5-Trimethylbenzene	The same of the sa	290	140	٦
9-09-86	tert-Butylbenzene		290		ח
95-63-6	1,2,4-Trimethylbenzene		290		٦
135-98-8	sec-Butylbenzene		290	1600	
541-73-1	1,3-Dichlorobenzene		290		D
9-28-66	4-Isopropyltoluene		290		ח
106-46-7	1,4-Dichlorobenzene		290		כ
95-50-1	1,2-Dichlorobenzene		290		Э
104-51-8	n-Butylbenzene		290	3100	
7-72-1	Hexachloroethane		290		ח
96-12-8	1,2-Dibromo-3-chloropropane	ne	290		>

Printed: 05/09/05 10:03:31 AM SampleList: 050205V ERM: C:\HPCHEM\1\8260ERMS\8260BTCL.erm

FORM1--VOLATILE

		Customer Sample#:	S18 D VOC	VOC	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501585-0020	Project:	Newark Liber	Newark Liberty Airport/Hangar 14	
Lab File ID:	V03040.D	Sample Matrix:	Soil Medium/High	High	
Instrument ID:	GC/MS VOA#6	Sampling Date:	4/29/2005		
Analyst:	KW	Analysis Date	5/6/2005 01:43:00	43:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MED		
Sample wt/vol:	10 G	Nominal Amount:	100 µL		
Extract Vol.	10000 (nL)	Aliquot Analyzed:	100 (ul)		
Dilution Factor:	-	Method:	SW846 8260B	8	
Sample Container:	Jar (SW-846 5035)	Moisture(%)	14		
CAS NO	ŏ	COMPOUND	Report Limit (µg/Kg)	CONC. (µg/Kg)	σ
87-68-3	Hexachlorobutadiene		290		D
91-20-3	Naphthalene		290		ס
87-61-6	1,2,3-Trichlorobenzene		290		ח
Qualifier Definitions U = Undefected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	Quantitation Level			

Group: 5/3/05 5/4/05 Lab File ID: C7733.D 1.0 Lab Sample ID: 1585-31 Date Extracted: Date Analyzed: Dilution Factor: Date Received: Contract: Location: \mathbf{z} pH: decanted: (Y/N): 1000 (uL) (g/mL G Site: (nF) Lab Name: EMSL ANALYTICAL SOIL LOW 30.1 1.0 Z Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) Level: (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.:

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
65-72-9	N-nitrosodimethylamine	340	n
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	n
95-50-1	1,2-Dichlorobenzene	340	U
108-60-1	bis(2-chloroisopropyl)ether	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	D
120-83-2	2,4-Dichlorophenol	340	Ŋ
120-82-1	1,2,4-Trichlorobenzene	340	Ŋ
91-20-3	Naphthalene	340	D
87-68-3	Hexachlorobutadiene	340	n
59-50-7	4-Chloro-3-methylphenol	340	Ω
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	n
91-58-7	2-Chloronaphthalene	340	Ω
131-11-3	Dimethylphthalate	340	Ω
208-96-8	Acenaphthylene	340	Ŋ
606-20-2	2,6-Dinitrotoluene	340	Ω
83-32-9	Acenaphthene	340	n
51-28-5	2,4-Dinitrophenol	840	n
100-02-7	4-Nitrophenol	840	n
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	Ω
86-73-7	Fluorene	340	n
7005-72-3	4-Chlorophenyl-phenylether	340	U

SAMPLE NO.

585-31 Group: Lab Sample ID: 1585-31 Contract: Location: Site: Lab Name: EMSL ANALYTICAL SOIL Matrix: (soil/water) Project No.:

Lab File ID: C7733.D Date Received: (g/mL G LOW 30.1 Level: (low/med) Sample wt/vol:

5/3/05 5/4/05 Date Analyzed: Date Extracted: Z decanted: (Y/N): 1000 (uL) Concentrated Extract Volume: % Moisture:

pH: (nF) 1.0 Injection Volume:

1.0 Dilution Factor:

> Z GPC Cleanup: (Y/N)

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
534-52-1	4,6-Dinitro-2-methylphenol	840	U
9-06-98	n-Nitrosodiphenylamine	340	n
122-66-7	1,2-Diphenylhydrazine(as azo)	340	n
101-55-3	4-Bromophenyl-phenylether	340	n
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	840	n
85-01-08	Phenanthrene	340	n
120-12-7	Anthracene	340	U
84-74-2	Di-n-butylphthalate	340	U
206-44-0	Fluoranthene	340	U
92-87-5	Benzidine	1700	U
29-00-0	Pyrene	340	n
85-68-7	Butylbenzylphthalate	340	n
56-55-3	Benzo[a]anthracene	340	n
91-94-1	3,3'-Dichlorobenzidine	0.09	U
218-01-9	Chrysene	340	U
17-81-7	bis(2-Ethylhexyl)phthalate	340	n
17-84-0	Di-n-octylphthalate	340	n
205-99-2	Benzo[b]fluoranthene	340	Ŋ
207-08-9	Benzo[k]fluoranthene	340	U
50-32-8	Benzo[a]pyrene	340	Ŋ
193-39-5	Indeno[1,2,3-cd]pyrene	340	Ŋ
53-70-3	Dibenz[a,h]anthracene	340	n
191-24-2	Benzo[g,h,i]perylene	340	U
			0.000

1585-32 Group: 5 5/3/05 5/4/05 Lab File ID: C7740.D Lab Sample ID: 1585-32 2.0 Dilution Factor: Date Extracted: Date Analyzed: Date Received: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) Ö Site: (g/mL (nF) Lab Name: EMSL ANALYTICAL SOIL LOW 30.1 1.0 Z Concentrated Extract Volume: 25 GPC Cleanup: (Y/N) Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Level:

	0
200	ug/Kg
Concentration Units:	(ug/L or ug/Kg)
	Compound
	CAS No.

CAS INO.	Compound	(481 /91 16 17 /9n)	,
62-75-9	N-nitrosodimethylamine	068	n
108-95-2	Phenol	880	U
111-44-4	bis(2-Chloroethyl)ether	068	Ω
95-57-8	2-Chlorophenol	068	Ω
541-73-1	1,3-Dichlorobenzene	068	U
106-46-7	1,4-Dichlorobenzene	068	n
95-50-1	1,2-Dichlorobenzene	068	n
108-60-1	bis(2-chloroisopropyl)ether	890	D
621-64-7	N-Nitroso-Di-n-propylamine	068	D
67-72-1	Hexachloroethane	068	U
98-95-3	Nitrobenzene	890	n
78-59-1	Isophorone	890	Ω
88-75-5	2-Nitrophenol	068	U
105-67-9	2,4-Dimethylphenol	068	D
111-91-1	bis(2-Chloroethoxy)methane	068	D
120-83-2	2,4-Dichlorophenol	068	Ŋ
120-82-1	1,2,4-Trichlorobenzene	068	Ω
91-20-3	Naphthalene	450	ſ
87-68-3	Hexachlorobutadiene	068	Ω
59-50-7	4-Chloro-3-methylphenol	068	ם
77-47-4	Hexachlorocyclopentadiene	068	D
88-06-2	2,4,6-Trichlorophenol	068	ם
91-58-7	2-Chloronaphthalene	068	D
131-11-3	Dimethylphthalate	068	D
208-96-8	Acenaphthylene	068	D
606-20-2	2,6-Dinitrotoluene	068	D
83-32-9	Acenaphthene	068	n
51-28-5	2,4-Dinitrophenol	2200	D
100-02-7	4-Nitrophenol	2200	Ω
121-14-2	2,4-Dinitrotoluene	890	ם
84-66-2	Diethylphthalate	890	D
86-73-7	Fluorene	068	ם
7005-72-3	4-Chlorophenyl-phenylether	068	D

1585-32 S Contract: Lab Name: EMSL ANALYTICAL

Location:

Group:

Lab File ID: C7740.D Lab Sample ID: 1585-32 (g/mL G Site: SOIL 30.1 Matrix: (soil/water) Sample wt/vol: Project No.:

5/3/05 Date Extracted: Date Received: Z decanted: (Y/N): LOW 25 (low/med) % Moisture: Level:

Dilution Factor: Date Analyzed: 1000 (uL) (nr) 1.0 Concentrated Extract Volume: Injection Volume:

2.0

5/4/05

pH: Z GPC Cleanup: (Y/N)

Concentration Units:

		Concentration Olitis.	
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
524 57 1	4 6-Dinitro-2-methylphenol	2200	n
204-25-1	n-Nitrosodinhenvlamine	068	n
122 66.7	1 2-Dinhenvlhydrazine(as azo)	068	n
101-55-3	4-Bromophenyl-phenylether	068	n
118-74-1	Hexachlorobenzene	068	n
87-86-5	Pentachlorophenol	2200	ם
85-01-08	Phenanthrene	068	ם
120-12-7	Anthracene	068	D
84-74-2	Di-n-butylphthalate	068	Þ
206-44-0	Fluoranthene	360	-
92-87-5	Benzidine	4500	ם
129-00-0	Pyrene	400	-
7-89-58	Butvlbenzvlphthalate	068	ם
56-55-3	Benzofalanthracene	310	-
91-94-1	3.3'-Dichlorobenzidine	1800	D
218-01-9	Chrysene	360	-
117-81-7	bis(2-Ethylhexyl)phthalate	068	D
117-84-0	Di-n-octylphthalate	068	D
205-00-2	Benzolblfluoranthene	460	
202-07	Benzofklfluoranthene	068	ח
50-32-8	Benzofalpyrene	340	-
103-30-5	Indeno[1,2,3-cd]pyrene	320	5
53-70-3	Dibenzía.hlanthracene	068	ם
101 24.2	Benzofg.h.ilpervlene	350	5

1585-1 5 13 Group: Lab File ID: C7722.D 5/2/05 Lab Sample ID: 1585-1 Date Received: Contract: Location: (g/mL G Site: EMSL ANALYTICAL SOIL LOW 30.0

Matrix: (soil/water)

Project No.:

Lab Name:

Sample wt/vol:

Date Analyzed: Date Extracted: Z decanted: (Y/N): 1000 (uL) (uL) Concentrated Extract Volume: (low/med) % Moisture: Level:

5/3/05 1.0 Dilution Factor:

> pH: Z GPC Cleanup: (Y/N) Injection Volume:

1.0

		Ø
		ug/Kg
	Concentration Units:	(ug/L or ug/Kg)
		Compound
Cleanup. (1/11)		CAS No.

CAS No.	Compound	(ng/L or ug/ng) ug/ng	у
6-57-69	N-nitrosodimethylamine	340	n
108 05.2	Phenol	340	Ω
111 44 4	his/2-Chloroethyl)ether	340	n
4-44-111	2 Chlorophenol	340	n
93-27-8	1 2 Dichlochange	340	n
541-73-1	1,3-Dichiologaizease	370	1
106-46-7	1,4-Dichlorobenzene	340	5
95-50-1	1,2-Dichlorobenzene	340	0
108-60-1	bis(2-chloroisopropyl)ether	340	D
621-64-7	N-Nitroso-Di-n-propylamine	340	n
67-72-1	Hexachloroethane	340	n
98-95-3	Nitrobenzene	340	ח
78-59-1	Isophorone	340	ח
88-75-5	2-Nitrophenol	340	n
105-67-9	2,4-Dimethylphenol	340	ם
111-91-1	bis(2-Chloroethoxy)methane	340	ם
120-83-2	2,4-Dichlorophenol	340	D
120-82-1	1,2,4-Trichlorobenzene	340	n
91-20-3	Naphthalene	340	ח
87-68-3	Hexachlorobutadiene	340	n
59-50-7	4-Chloro-3-methylphenol	340	n
77-47-4	Hexachlorocyclopentadiene	340	n
88-06-2	2,4,6-Trichlorophenol	340	n
91-58-7	2-Chloronaphthalene	340	Ω
131-11-3	Dimethylphthalate	340	n
208-96-8	Acenaphthylene	340	ם
606-20-2	2,6-Dinitrotoluene	340	ח
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	840	n
100-02-7	4-Nitrophenol	840	D
121-14-2	2,4-Dinitrotoluene	340	ם
84-66-2	Diethylphthalate	340	ם
86-73-7	Fluorene	340	ם
7005 77 3	4-Chlorophenyl-phenylether	340	Þ

FORM I SV

Group: Lab File ID: C7722.D 5/2/05 5/3/05 1.0 Lab Sample ID: 1585-1 Dilution Factor: Date Analyzed: Date Received: Date Extracted: Contract: Location: Z decanted: (Y/N): (ILL) Ö (g/mL 1000 Site: (uL) EMSL ANALYTICAL LOW SOIL 30.0 1.0 Concentrated Extract Volume: Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Lab Name: Level:

pH: Z GPC Cleanup: (Y/N)

Concentration Units:

		Comcountation orans.		
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0	1
534-52-1	4.6-Dinitro-2-methylphenol	840	n	-
86-30-6	n-Nitrosodiphenylamine	340	n	
122-66-7	1.2-Diphenylhydrazine(as azo)	340	n	
101-55-3	4-Bromophenyl-phenylether	340	n	
118-74-1	Hexachlorobenzene	340	Ŋ	1
87-86-5	Pentachlorophenol	840	D	1
85-01-08	Phenanthrene	340	n	Т
120-12-7	Anthracene	340	n	Т
84-74-2	Di-n-butylphthalate	340	n	Т
206-44-0	Fluoranthene	340	n	_
92-87-5	Benzidine	1700	n	Т
129-00-0	Pyrene	340	ם	
85-68-7	Butylbenzylphthalate	340	n	-
56-55-3	Benzofalanthracene	340	n	П
01-94-1	3.3'-Dichlorobenzidine	089	D	
218-01-9	Chrysene	340	n	Т
117-81-7	bis(2-Ethylhexyl)phthalate	340	D	Т
117-84-0	Di-n-octylphthalate	340	n	
205-90-2	Benzo[b]fluoranthene	340	n	
207-08-9	Benzo[k]fluoranthene	340	n	
50-32-8	Benzolalpyrene	340	n	T
102 30.5	Indepo[12.3-cd]pyrene	340	ם	
1 1 1 1 1 1 1	Mildonoi - i - i - i - i - i - i - i - i - i -			

3/90

1

340 340 340

Indeno[1,2,3-cd]pyrene Dibenz[a,h]anthracene

193-39-5

Benzo[g,h,i]perylene

191-24-2

53-70-3

1585-3 5 13 D

Group: Lab File ID: C7726.D 5/2/05 5/3/05 2.0 Lab Sample ID: 1585-3 Dilution Factor: Date Analyzed: Date Extracted: Date Received: Contract: Location: Z decanted: (Y/N): 1000 (uL) C (g/mL Site: (nF) EMSL ANALYTICAL SOIL LOW 30.1 1.0 Concentrated Extract Volume: 27 Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Lab Name: Level:

GPC Cleanup: (Y/N) N pH:

Concentration Units:

			(
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	2
62-72-9	N-nitrosodimethylamine	910	n
108-95-2	Phenol	910	ח
111-44-4	bis(2-Chloroethyl)ether	910	n
95-57-8	2-Chlorophenol	910	Ω
541-73-1	1.3-Dichlorobenzene	910	n
106-46-7	1,4-Dichlorobenzene	910	Ω
95-50-1	1,2-Dichlorobenzene	910	ם
108-60-1	bis(2-chloroisopropyl)ether	910	ח
621-64-7	N-Nitroso-Di-n-propylamine	910	ם
67-72-1	Hexachloroethane	910	n
98-95-3	Nitrobenzene	910	ם
78-59-1	Isophorone	910	ם
88-75-5	2-Nitrophenol	910	D
105-67-9	2,4-Dimethylphenol	910	ם
111-91-1	bis(2-Chloroethoxy)methane	910	ם
120-83-2	2,4-Dichlorophenol	910	מ
120-82-1	1.2.4-Trichlorobenzene	910	n
91-20-3	Naphthalene	390	ſ
87-68-3	Hexachlorobutadiene	910	ם
59-50-7	4-Chloro-3-methylphenol	910	ם
77-47-4	Hexachlorocyclopentadiene	910	n
88-06-2	2.4.6-Trichlorophenol	910	ח
91-58-7	2-Chloronaphthalene	910	n
131-11-3	Dimethylphthalate	910	n
8-96-800	Acenaphthylene	390	<u>-</u>
700 000	, 1,	010	11

910

4-Chlorophenyl-phenylether

7005-72-3

84-66-2

2,4-Dinitrotoluene

4-Nitrophenol

Diethylphthalate

Fluorene

2,4-Dinitrophenol

Acenaphthene

D

910 700 2300 910 910 1600

2,6-Dinitrotoluene

606-20-2 83-32-9 51-28-5 100-02-7 121-14-2

1585-3 5 13 D Group: Lab File ID: C7726.D 5/2/05 5/3/05 2.0 Lab Sample ID: 1585-3 Dilution Factor: Date Analyzed: Date Extracted: Date Received: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) (g/mL G Site: (nF) EMSL ANALYTICAL SOIL LOW 30.1 1.0Z Concentrated Extract Volume: GPC Cleanup: (Y/N) 27 Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Lab Name: Level:

Unit
Concentration

0	U	Ω	n	n	n	Ω			n		n		n		n		D	D					ם	_
1																								
ug/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
ıg/Kg)	2300	910	910	910	910	2300	0006	1900	910	0006	4600	6400	910	3400	1800	3400	910	910	3100	1200	2900	1900	910	1600
(ug/L or ug/Kg)																								
	phenol	ine	e(as azo)	ylether											ne		ıalate					ne	ie	
_	4,6-Dinitro-2-methylphenol	n-Nitrosodiphenylamine	1,2-Diphenylhydrazine(as azo)	4-Bromophenyl-phenylether	obenzene	ophenol	ane	8	phthalate	ine			Butylbenzylphthalate	nthracene	3,3'-Dichlorobenzidine		bis(2-Ethylhexyl)phthalate	phthalate	Benzo[b]fluoranthene	Benzo[k]fluoranthene	yrene	Indeno[1,2,3-cd]pyrene	Dibenz[a,h]anthracene	The section of
Compound	4,6-Dinitro	n-Nitrosod	1,2-Diphe	4-Bromopl	Hexachlorobenzene	Pentachlorophenol	Phenanthrene	Anthracene	Di-n-butylphthalate	Fluoranthene	Benzidine	Pyrene	Butylbenz	Benzo[a]anthracene	3,3'-Dichl	Chrysene	bis(2-Ethy	Di-n-octylphthalate	Benzo[b]fl	Benzo[k]fl	Benzo[a]pyrene	Indeno[1,2	Dibenz[a,l	The state of the s
										0												5		
CAS No.	534-52-1	9-08-98	122-66-7	101-55-3	118-74-1	87-86-5	85-01-08	120-12-7	84-74-2	206-44-0	92-87-5	129-00-0	85-68-7	56-55-3	91-94-1	218-01-9	117-81-7	117-84-0	205-99-2	207-08-9	50-32-8	193-39-5	53-70-3	0,00

SAMPLE NO. SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

5 14 Group: Lab File ID: C7721.D 5/2/05 5/3/05 1.0 Lab Sample ID: 1585-2 Dilution Factor: Date Analyzed: Date Received: Date Extracted: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) (g/mL G Site: (nF) Lab Name: EMSL ANALYTICAL SOIL LOW 30.1 1.0 Z Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) Level: (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.:

Concentration Units:

214 23 4 2		ints.	c
CAS INO.	Compound	(ug/L of ug/Ng) ug/Ng	y
62-75-9	N-nitrosodimethylamine	340	Ω
108-95-2	Phenol	340	n
111-44-4	bis(2-Chloroethyl)ether	340	Ω
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
108-60-1	bis(2-chloroisopropyl)ether	340	U
621-64-7	N-Nitroso-Di-n-propylamine	340	Ŋ
67-72-1	Hexachloroethane	340	Ω
98-95-3	Nitrobenzene	340	Ω
78-59-1	Isophorone	340	Ω
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	Ω
111-91-1	bis(2-Chloroethoxy)methane	340	Ω
120-83-2	2,4-Dichlorophenol	340	Ω
120-82-1	1,2,4-Trichlorobenzene	340	Ω
91-20-3	Naphthalene	340	Ω
87-68-3	Hexachlorobutadiene	340	Ω
59-50-7	4-Chloro-3-methylphenol	340	Ω
77-47-4	Hexachlorocyclopentadiene	340	Ω
88-06-2	2,4,6-Trichlorophenol	340	n
91-58-7	2-Chloronaphthalene	340	D
131-11-3	Dimethylphthalate	340	Ω
208-96-8	Acenaphthylene	340	D
606-20-2	2,6-Dinitrotoluene	340	Ω
83-32-9	Acenaphthene	340	n
51-28-5	2,4-Dinitrophenol	850	U
100-02-7	4-Nitrophenol	850	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
86-73-7	Fluorene	340	n
7005-72-3	4-Chiorophenyl-phenylether	340	Ω

3/90

1585-2 514 Group: Lab File ID: C7721.D 5/3/05 5/2/05 1.0 Lab Sample ID: 1585-2 Dilution Factor: Date Extracted: Date Analyzed: Date Received: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) (g/mL G Site: (ILL Lab Name: EMSL ANALYTICAL SOIL LOW 30.1 1.0 Z Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Level:

Concentration Units:

			(
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	2
534-52-1	4,6-Dinitro-2-methylphenol	850	n
86-30-6	n-Nitrosodiphenylamine	340	n
122-66-7	1,2-Diphenylhydrazine(as azo)	340	n
101-55-3	4-Bromophenyl-phenylether	340	n
118-74-1	Hexachlorobenzene	340	n
87-86-5	Pentachlorophenol	850	n
85-01-08	Phenanthrene	340	n
120-12-7	Anthracene	340	n
84-74-2	Di-n-butylphthalate	340	n
206-44-0	Fluoranthene	340	n
92-87-5	Benzidine	1700	Ω
129-00-0	Pyrene	340	n
85-68-7	Butylbenzylphthalate	340	Ω
56-55-3	Benzo[a]anthracene	340	Ω
91-94-1	3,3'-Dichlorobenzidine	089	Ω
218-01-9	Chrysene	340	Ω
117-81-7	bis(2-Ethylhexyl)phthalate	340	Ω
117-84-0	Di-n-octylphthalate	340	Ω
205-99-2	Benzo[b]fluoranthene	340	Ω
207-08-9	Benzo[k]fluoranthene	340	Ŋ
50-32-8	Benzo[a]pyrene	340	n
193-39-5	Indeno[1,2,3-cd]pyrene	340	D
53-70-3	Dibenz[a,h]anthracene	340	Ω
TO SEC. (1) CONTROL OF THE PARTY OF THE PART			

340

Benzo[g,h,i]perylene

191-24-2 53-70-3

Contract:

Location: Site: Lab Name: EMSL ANALYTICAL Project No.:

Group:

Lab File ID: C7730.D Lab Sample ID: 1585-4 (g/mL G SOIL 30.0 Matrix: (soil/water) Sample wt/vol:

Date Extracted: Date Received: Z decanted: (Y/N): LOW 36 (low/med) % Moisture: Level:

5/2/05

5/4/05 5.0 Date Analyzed: Dilution Factor: 1000 (uL) (nF) Concentrated Extract Volume:

Injection Volume: 1.0 (uL)

GPC Cleanup: (Y/N) N

Concentration Units:

	0	;
	ug/Kg	
Concentration Units:	(ug/L or ug/Kg)	
	Compound	
	CAS No.	

CAS INO.	Numodino.	(6)	, [
62-75-9	N-nitrosodimethylamine	2600	n
108-95-2	Phenol	2600	Ω
111-44-4	bis(2-Chloroethyl)ether	2600	n
95-57-8	2-Chlorophenol	2600	n
541-73-1	1,3-Dichlorobenzene	2600	n
106-46-7	1,4-Dichlorobenzene	2600	n
95-50-1	1,2-Dichlorobenzene	2600	n
108-60-1	bis(2-chloroisopropyl)ether	2600	n
621-64-7	N-Nitroso-Di-n-propylamine	2600	n
67-72-1	Hexachloroethane	2600	n
98-95-3	Nitrobenzene	2600	n
78-59-1	Isophorone	2600	n
88-75-5	2-Nitrophenol	2600	n
105-67-9	2,4-Dimethylphenol	2600	n
111-91-1	bis(2-Chloroethoxy)methane	2600	n
120-83-2	2,4-Dichlorophenol	2600	n
120-82-1	1,2,4-Trichlorobenzene	2600	n
91-20-3	Naphthalene	2600	n
87-68-3	Hexachlorobutadiene	2600	n
59-50-7	4-Chloro-3-methylphenol	2600	n
77-47-4	Hexachlorocyclopentadiene	2600	D
88-06-2	2,4,6-Trichlorophenol	2600	n
91-58-7	2-Chloronaphthalene	2600	n
131-11-3	Dimethylphthalate	2600	n
208-96-8	Acenaphthylene	2600	P
606-20-2	2,6-Dinitrotoluene	2600	n
83-32-9	Acenaphthene	2600	n
51-28-5	2,4-Dinitrophenol	6500	n
100-02-7	4-Nitrophenol	6500	n
121-14-2	2,4-Dinitrotoluene	2600	n
84-66-2	Diethylphthalate	2600	n
86-73-7	Fluorene	2600	D
7005-72-3	4-Chlorophenyl-phenylether	2600	n

5 14 Group: Lab File ID: C7730.D 5/2/05 5/4/05 5.0 Lab Sample ID: 1585-4 Dilution Factor: Date Analyzed: Date Received: Date Extracted: Contract: Location: Z decanted: (Y/N): 1000 (uL) (g/mL G Site: (uL) Lab Name: EMSL ANALYTICAL SOIL LOW 30.0 1.0 Concentrated Extract Volume: Matrix: (soil/water) Level: (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.:

GPC Cleanup: (Y/N) N pH:

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	11/2
Concentration Units:	1 11

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
534-52-1	4,6-Dinitro-2-methylphenol	6500	n
86-30-6	n-Nitrosodiphenylamine	2600	U
122-66-7	1,2-Diphenylhydrazine(as azo)	2600	U
101-55-3	4-Bromophenyl-phenylether	2600	Ω
118-74-1	Hexachlorobenzene	2600	U
87-86-5	Pentachlorophenol	9059	n
85-01-08	Phenanthrene	2600	n
120-12-7	Anthracene	2600	Ŋ
84-74-2	Di-n-butylphthalate	2600	n
206-44-0	Fluoranthene	1300	r
92-87-5	Benzidine	13000	Ω
129-00-0	Pyrene	1200	5
85-68-7	Butylbenzylphthalate	2600	Ŋ
56-55-3	Benzo[a]anthracene	2600	Û
91-94-1	3,3'-Dichlorobenzidine	5200	U
218-01-9	Chrysene	2600	n
117-81-7	bis(2-Ethylhexyl)phthalate	2600	n
117-84-0	Di-n-octylphthalate	2600	n
205-99-2	Benzo[b]fluoranthene	970	ſ
207-08-9	Benzo[k]fluoranthene	2600	D
50-32-8	Benzo[a]pyrene	2600	n
193-39-5	Indeno[1,2,3-cd]pyrene	2600	n
53-70-3	Dibenz[a,h]anthracene	2600	n
191-24-2	Benzo[g,h,i]perylene	2600	U

3/90

1585-21 513 Group: 5/2/05 5/3/05 Lab File ID: C7725.D 2.0 Lab Sample ID: 1585-21 Dilution Factor: Date Analyzed: Date Extracted: Date Received: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) (g/mL G Site: (nF) Lab Name: EMSL ANALYTICAL SOIL LOW 30.1 1.0 Z Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Level:

Concentration Units:

		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
62-75-9	N-nitrosodimethylamine	710	Ω
108-95-2	Phenol	710	n
111-44-4	bis(2-Chloroethyl)ether	710	Ω
95-57-8	2-Chlorophenol	710	n
541-73-1	1,3-Dichlorobenzene	710	n
106-46-7	1,4-Dichlorobenzene	710	n
95-50-1	1,2-Dichlorobenzene	710	Ω
108-60-1	bis(2-chloroisopropyl)ether	710	n
621-64-7	N-Nitroso-Di-n-propylamine	710	Ω
67-72-1	Hexachloroethane	710	n
98-95-3	Nitrobenzene	710	Ω
78-59-1	Isophorone	710	n
88-75-5	2-Nitrophenol	710	n
105-67-9	2,4-Dimethylphenol	710	n
111-91-1	bis(2-Chloroethoxy)methane	710	n
120-83-2	2,4-Dichlorophenol	710	n
120-82-1	1,2,4-Trichlorobenzene	710	n
91-20-3	Naphthalene	710	Ω
87-68-3	Hexachlorobutadiene	710	n
59-50-7	4-Chloro-3-methylphenol	710	n
77-47-4	Hexachlorocyclopentadiene	710	Ω
88-06-2	2,4,6-Trichlorophenol	710	n
91-58-7	2-Chloronaphthalene	710	n
131-11-3	Dimethylphthalate	710	D
208-96-8	Acenaphthylene	710	ח
606-20-2	2,6-Dinitrotoluene	710	n
83-32-9	Acenaphthene	710	n
51-28-5	2,4-Dinitrophenol	1800	D
100-02-7	4-Nitrophenol	1800	n
121-14-2	2,4-Dinitrotoluene	710	D
84-66-2	Diethylphthalate	710	n
86-73-7	Fluorene	710	n
7005-72-3	4-Chlorophenyl-phenylether	710	n

	147
Concentration Units:	

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
534-52-1	4,6-Dinitro-2-methylphenol	1800	n
9-06-98	n-Nitrosodiphenylamine	710	n
122-66-7	1,2-Diphenylhydrazine(as azo)	710	Ω
101-55-3	4-Bromophenyl-phenylether	710	n
118-74-1	Hexachlorobenzene	710	n
87-86-5	Pentachlorophenol	1800	n
85-01-08	Phenanthrene	710	n
120-12-7	Anthracene	710	Ω
84-74-2	Di-n-butylphthalate	710	n
206-44-0	Fluoranthene	710	n
92-87-5	Benzidine	3600	n
129-00-0	Pyrene	710	Ω
85-68-7	Butylbenzylphthalate	710	ח
56-55-3	Benzo[a]anthracene	710	D
91-94-1	3,3'-Dichlorobenzidine	1400	n
218-01-9	Chrysene	710	D
117-81-7	bis(2-Ethylhexyl)phthalate	710	n
117-84-0	Di-n-octylphthalate	710	n
205-99-2	Benzo[b]fluoranthene	710	n
207-08-9	Benzo[k]fluoranthene	710	Ω
50-32-8	Benzo[a]pyrene	710	n
193-39-5	Indeno[1,2,3-cd]pyrene	710	n
53-70-3	Dibenz[a,h]anthracene	710	n
191-24-2	Benzo[g,h,i]perylene	710	n
CONTRACTOR SPECIAL CONTRACTOR CONTRACTOR			

1585-22 S 18 D Group: Lab File ID: C7723.D 5/2/05 5/3/05 Lab Sample ID: 1585-22 Date Analyzed: Date Received: Date Extracted: Contract: Location: Z decanted: (Y/N): 1000 (uL) (g/mL G Site: Lab Name: EMSL ANALYTICAL SOIL LOW 30.1 Concentrated Extract Volume: Matrix: (soil/water) Level: (low/med) Sample wt/vol: % Moisture: Project No.:

GPC Cleanup: (Y/N) N pH:

(nF)

1.0

Injection Volume:

Concentration Units:

2.0

Dilution Factor:

0 ug/Kg (119/L, or 119/Kg)

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
65-75-9	N-nitrosodimethylamine	750	n
108-95-2	Phenol	750	Ω
111-44-4	bis(2-Chloroethyl)ether	750	Ω
95-57-8	2-Chlorophenol	750	n
541-73-1	1,3-Dichlorobenzene	750	n
106-46-7	1,4-Dichlorobenzene	750	n
95-50-1	1,2-Dichlorobenzene	750	n
108-60-1	bis(2-chloroisopropyl)ether	750	Ω
621-64-7	N-Nitroso-Di-n-propylamine	750	Ω
67-72-1	Hexachloroethane	750	Ω
98-95-3	Nitrobenzene	750	Ω
78-59-1	Isophorone	750	U
88-75-5	2-Nitrophenol	750	Ω
105-67-9	2,4-Dimethylphenol	750	Ω
111-91-1	bis(2-Chloroethoxy)methane	750	Ω
120-83-2	2,4-Dichlorophenol	750	D
120-82-1	1,2,4-Trichlorobenzene	750	n
91-20-3	Naphthalene	750	n
87-68-3	Hexachlorobutadiene	750	Ŋ
59-50-7	4-Chloro-3-methylphenol	750	n
77-47-4	Hexachlorocyclopentadiene	750	n
88-06-2	2,4,6-Trichlorophenol	750	D
91-58-7	2-Chloronaphthalene	750	n
131-11-3	Dimethylphthalate	750	n
208-96-8	Acenaphthylene	750	n
606-20-2	2,6-Dinitrotoluene	750	n
83-32-9	Acenaphthene	750	n
51-28-5	2,4-Dinitrophenol	1900	D
100-02-7	4-Nitrophenol	1900	D
121-14-2	2,4-Dinitrotoluene	750	D
84-66-2	Diethylphthalate	750	n
86-73-7	Fluorene	750	n
7005-72-3	4-Chlorophenyl-phenylether	750	n

1585-22 518 Contract: Lab Name: EMSL ANALYTICAL

Location: Site: Project No.:

Group:

Lab File ID: C7723.D Lab Sample ID: 1585-22 SOIL Matrix: (soil/water)

Date Extracted: Date Received: (g/mL G LOW 30.1 (low/med) Sample wt/vol: Level:

Date Analyzed: 1000 (uL) (nF) 1.0 Concentrated Extract Volume: Injection Volume: % Moisture:

2.0 Dilution Factor:

5/2/05

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decanted: (Y/N):

11

5/3/05

pH: \mathbf{z} GPC Cleanup: (Y/N)

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Concentration Units:	(na/I or na/Ka)

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	y
534-52-1	4,6-Dinitro-2-methylphenol	1900	Ω
86-30-6	n-Nitrosodiphenylamine	750	Ω
122-66-7	1,2-Diphenylhydrazine(as azo)	750	n
101-55-3	4-Bromophenyl-phenylether	750	n
118-74-1	Hexachlorobenzene	750	n
87-86-5	Pentachlorophenol	1900	n
85-01-08	Phenanthrene	1000	
120-12-7	Anthracene	750	Ω
84-74-2	Di-n-butylphthalate	430	J
206-44-0	Fluoranthene	1000	
92-87-5	Benzidine	3800	D
129-00-0	Pyrene	780	
85-68-7	Butylbenzylphthalate	750	D
56-55-3	Benzo[a]anthracene	300	J
91-94-1	3,3'-Dichlorobenzidine	1500	D
218-01-9	Chrysene	320	J
117-81-7	bis(2-Ethylhexyl)phthalate	1700	
117-84-0	Di-n-octylphthalate	610	ſ
205-99-2	Benzo[b]fluoranthene	270	J
207-08-9	Benzo[k]fluoranthene	750	Ω
50-32-8	Benzo[a]pyrene	750	Ŋ
193-39-5	Indeno[1,2,3-cd]pyrene	750	D
53-70-3	Dibenz[a,h]anthracene	750	ם
191-24-2	Benzo[g,h,i]perylene	750	Ü

FORM I SV

1D PCB ANALYSIS DATA SHEET

CLIENT SAMPLE ID.

					MW- 2	*
Lab Name: EMSL AN	EMSL ANALYTICAL		Contract:			
Lab Code:	Case No.:		SAS No.:		SDG No.:	١
Matrix: (soil/water)	Water			Lab Sample ID:	1794-4	
Sample wt/vol:	970	(g/mL)	mL	Lab File ID:	H1963	
% Moisture:	qec	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	/Sonc)	SepF		Date Extracted:	05/19/05	
Concentrated Extract Volume:	/olume:	10 (ml)		Date Analyzed:	05/25/05	
Injection Volume:	-	_ (uL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	HQ.		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		2 2
CAS NO.	COMPOUND	CON (ng/L	CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/L	ø

N/A = Not Applicable U = Not detected

FORM I PEST PCB

3/90

0.48 0.47 0.39 0.14 0.16 0.45

53469-21-9 --12672-29-6 --11097-69-1 --11096-82-5 --

12674-11-2 - - - -11104-28-2 - - - -11141-16-5 - - - -

CAS NO.

PCB ANALYSIS DATA SHEET 10

CLIENT SAMPLE ID.

Lab Name: EMSL A	EMSL ANALYTICAL		Contract:		mw-4	7
81 8	Case No.:		SAS No.:		SDG No.:	
Matrix: (soil/water)	Water	1		Lab Sample ID:	1794-3	
Sample wt/vol:	970	(g/mL)	mL	Lab File ID:	H1962	
% Moisture:	ğ	decanted: (Y/N)	z	Date Received:		
Extraction: (SepF/Cont/Sonc)	(Sonc)	SepF		Date Extracted:	05/19/05	
Concentrated Extract Volume:	Volume:	10 (ml)		Date Analyzed:	05/25/05	
Injection Volume:	-	(nL)		Dilution Factor:	-	
GPC Cleanup: (Y/N)	z	pH:		Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)		zz
CAS NO.	COMPOUND		CONCENTRATION UNITS: (ug/L or ug/Kg)	JNITS:	ng/L	ď

N/A = Not Applicable U = Not detected

5 - Aroclor-1232 9 - Aroclor-1242 6 - Aroclor-1248 1 - Aroclor-1254 5 - Aroclor-1260

11141-16-5 -53469-21-9 -12672-29-6 -11097-69-1 -11096-82-5 -

- - · Aroclor-1016 ----- Aroclor-1221

12674-11-2 -

CAS NO.

FORM I PEST PCB

3/90

0.48 0.39 0.14 0.21 0.16 0.45

1D PCB ANALYSIS DATA SHEET

CLIENT SAMPLE ID.

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MW-15	SDG No.:	1794-1	H1960		05/19/05	05/25/05	-	(N) (N)	7/bn	0.48	0.47	0.39	0.14	0.20	0.16	0.45	
		Lab Sample ID:	Lab File ID:	Date Received:	Date Extracted:	Date Analyzed:	Dilution Factor:	Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	JNITS:								
Contract:	SAS No.:		mL	z		(ml)			CONCENTRATION UNITS: (ug/L or ug/Kg)								
AL	::	ler	0 (g/mL)	decanted: (Y/N)	SepF	10	(nr)	pH:		1016	1221	1232	1242	1248	1254	1260	
EMSL ANALYTICAL	Case No.:	/ater) Water	1 980	N/A	Extraction: (SepF/Cont/Sonc)	Concentrated Extract Volume:	me:	(Y/N) :	COMPOUND	Aroclor-1016	Aroclor-1221	1	,	,	:	1260	
Lab Name:	Lab Code:	Matrix: (soil/water)	Sample wt/vol:	% Moisture:	Extraction: (S	Concentrated	Injection Volume:	GPC Cleanup: (Y/N)	CAS NO.	12674 11.2	11104-28-2	11104-20-2	53469-21-9	42672-29-6	11097-69-1	11096-82-5	

N/A = Not Applicable U = Not detected

FORM I PEST PCB

3/90

1D PCB ANALYSIS DATA SHEET

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MW-23		SDG No.:	1794-2	H1961		05/19/05	05/25/05	-	(N) (N)	ug/L
			Lab Sample ID:	_Lab File ID:	Date Received:	Date Extracted:	Date Analyzed:	Dilution Factor:	Sulfur Cleanup: (Y/N) H ₂ SO ₄ Cleanup: (Y/N)	UNITS:
Contract:		SAS No.:		mL	z		_			CONCENTRATION UNITS:
			1	(g/mL)	decanted: (Y/N)	SepF	10 (ml)	(nr)	pH:	8.
	EMSL ANALY IICAL	Case No.:	er) Water	086	N/A	F/Cont/Sonc)	ktract Volume:	:0	N (Y/N)	
	Lab Name: EN	Lab Code:	Matrix: (soil/water)	Sample wt/vol:	% Moisture:	Extraction: (SepF/Cont/Sonc)	Concentrated Extract Volume:	Injection Volume:	GPC Cleanup: (Y/N)	

ng/L CONCENTRATION UNITS: (ug/L or ug/Kg) COMPOUND CAS NO.

0.48	0.47	0.39	0.14	0.20	0.16	0.45	
	12674-11-2 Aroclor-1016	1		:			11096-82-5 Aroclor-1260

N/A = Not Applicable U = Not detected

FORM I PEST PCB

3/90

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET

EMSL Sample ID: Lab File ID: Instrument ID: Analyst: GC Column: GC Column 2: % Moisture: PH: GPC Cleanup(Y/N): Extraction Type: Method:	010504247-0002 G4721.D G CLPest I (0.32 mm) CLPest II (0.32 mm) N SepF Sw846 8081/8082	Project: Sample Matrix: Sampling Date: Date Extracted: Analysis Date Sample wt/vol: Dilution Factor: Concentrated Extract Vol: Injection Volume: Sulfur Cleanup:	Waste Water 10/19/05 10/25/05 10/27/05 04:39:00 960 ML 20 10 (ml) 1 (ul)	00:6	
CAS NO		COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
			21		>
12674-11-2	Aroclor-1016	to the property of the control of th	21		ר
11104-28-2	Aroclor-1221		21		כ
11141-16-5	Aroclor-1232	The second secon	21		ח
53469-21-9	Aroclor-1242	The second secon	21		>
12672-29-6	Aroclor-1248	production and the second seco	21		<u>י</u>
11097-69-1	Aroclor-1254	The second secon	21		כ
11096-82-5	Aroclor-1260	a company design of the controller of the control o			

- 1		Customer Sample#:	ナット Y-MIM	なか	
	A CITY IN THE		,		
Lab Name:	EMSL ANALY IICAL	Project:	8513.002		
EMSL Sample ID:	010501794-0004	Sample Matrix:	Water		
Lab File ID:	13000.D	Campling Date.	5/13/2005		
Instrument ID:	COMO VOL	Analysis Date	5/19/2005 20:03:00	.03:00	
Analyst:	017 E00 0 (0.05 mm)	l evel (low/med):	NON		
GC Column:	202.2	Nominal Amount:	5 ML		
Sample wt/vol: Dilution Factor:	J MIL	Method:	EPA 624		
CAS NO	ŏ	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	ď
74-87-3	Chloromethane		0.86		ם :
75-01-4	Vinyl chloride		1.2		ם
74.83.9	Bromomethane	and the state of t	0.52		0
75.00-3	Chloroethane		0.41		ח
75-69-4	Trichlorofluoromethane		0.59		o :
107-02-8	Acrolein		15		5
75-35-4	1,1-Dichloroethene		0.33		5
75-09-2	Methylene chloride		0.35		S
107-13-1	Acrylonitrile		1.2		o
156-60-5	trans-1,2-Dichloroethene	O	0.42		o :
75-34-3	1,1-Dichloroethane		0.34		-
156-59-4	cis-1,2-Dichloroethene		0.29		5
67-66-3	Chloroform		0.30		> =
71-55-6	1,1,1-Trichloroethane		0.44		> =
56-23-5	Carbon tetrachloride		0.39		5 =
71-43-2	Benzene		0.23		5
107-06-2	1,2-Dichloroethane		0.29		> =
79-01-6	Trichloroethene		0.37		o :
78-87-5	1,2-Dichloropropane		0.23		> :
75-27-4	Bromodichloromethane		0.31		o
110-75-8	2-Chloroethyl vinyl ether		0.49		0 2
10061-01-5	cis-1,3-Dichloropropene		0.54		0 =
108-88-3	Toluene		0.33		5 =
10061-02-6	trans-1,3-Dichloropropene	ne	0.55		> =
79-00-5	1,1,2-Trichloroethane		0.32		5
127-18-4	Tetrachloroethene		0.34		5
124-48-1	Dibromochloromethane		0.27		0
108-90-7	Chlorobenzene		0.21		> =
100-41-4	Ethylbenzene		0.20		5
108-38-3	Xylene (para & meta)		0.61		
95-47-6	Xylene (ortho)		0.31	0.38	=
75-25-2	Bromoform		0.36	9	> =
1 21			700		=

				•	
i ab Name: EMSL ANAL	EMSL ANALYTICAL				
FMSI Sample ID: 010501794-0004		Project:	8513.002		
T3888.D		Sample Matrix:	Water		-
ć		Sampling Date:	5/13/2005		-
# E		Analysis Date	5/19/2005 20:03:00	03:00	
Analyst:		I aval (low/med):	LOW		
40.		Nominal Amount:	5 ML		
Sample wtvol: 5 ML Dilution Factor: 1		Method:	EPA 624		
CAS NO	00	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
	out of the control of	The state of the s	0.36		ח
541-73-1	openzene		0.25		ר
106-46-7 1,4-Dichlorobenzene	openzene		0 0	_	=
95-50-1 1,2-Dichlorobenzene	obenzene		0.37		>

		Customer Sample#:	MW-4		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501794-0003	Project:	8513.002		
l ab File ID:	T3887.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/13/2005		
Analyst:	ΚW	Analysis Date	5/19/2005 19:24:00	9:24:00	i
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	TOM		
Sample wt/vol:	5 ML	Nominal Amount: Method:	5 IML EPA 624		
			Report		
CAS NO	ō	COMPOUND	Limit (µg/L)	CONC. (µg/L)	a
74-87-3	Chloromethane	The second secon	0.86		n
75-01-4	Vinyl chloride		1.2	1 D D D D D D D D D D D D D D D D D D D	-
74-83-9	Bromomethane		0.52		ם
75-00-3	Chloroethane		0.41		n
75-69-4	Trichlorofluoromethane		0.59		ח
107-02-8	Acrolein		15		ם
75-35-4	1,1-Dichloroethene		0.33		>
75-09-2	Methylene chloride		0.35		n
107-13-1	Acrylonitrile	The second secon	1.2		>
156-60-5	trans-1,2-Dichloroethene		0.42		>
75-34-3	1,1-Dichloroethane		0.34		ם
156-59-4	cis-1,2-Dichloroethene		0.29		D
67-66-3	Chloroform		0.30		ם
71-55-6	1,1,1-Trichloroethane		0.44		>
56-23-5	Carbon tetrachloride		0.39		5
71-43-2	Benzene		0.23	0.86	
107-06-2	1,2-Dichloroethane		0.29		D
79-01-6	Trichloroethene		0.37		D
78-87-5	1,2-Dichloropropane		0.23		-
75-27-4	Bromodichloromethane		0.31		D
110-75-8	2-Chloroethyl vinyl ether		0.49		>
10061-01-5	cis-1,3-Dichloropropene		0.54		> :
108-88-3	Toluene		0.33		o :
10061-02-6	trans-1,3-Dichloropropene	Je	0.55		> :
79-00-5	1,1,2-Trichloroethane		0.32		D
127-18-4	Tetrachloroethene		0.34		>
124-48-1	Dibromochloromethane		0.27		ם
108-90-7	Chlorobenzene		0.21		5
100-41-4	Ethylbenzene		0.20		>
108-38-3	Xylene (para & meta)		0.61		>
95-47-6	Xylene (ortho)		0.31		>
75-25-2	Bromoform		0.36		ח
	oughtonicklossistic		0.27		>

Lab Name: EMSL ANALYTICAL EMSL Sample ID: Project: 8513.002 EMSL Sample ID: 010501794-0003 Project: Water Lab File ID: T3887.D Sample Matrix: Valer Lab File ID: T3887.D Sampling Date: 5/13/2005 Analyst: RWV Analysis Date 5/19/2005 19:24:00 Analyst: RWV Analysis Date LOW GC Column: SML Nominal Amount: 5 ML Sample wt/vol: 5 ML Method: 5 ML Dilution Factor: 1 Method: COMPOUND Report (µg/L) QOIC. (µg/L) Q CAS NO CAS NO COMPOUND COMPOUND CONC. (µg/L) Q U 541-73-1 1,4-Dichlorobenzene 0.36 U U 95-50-1 1,2-Dichlorobenzene 0.37 U 95-50-1 0.37 U			Customer Sample#:	MW-4		
D: 010501794-0003 Project: 8513.002	Lab Name:	EMSL ANALYTICAL				
T3887 D Sample Matrix: Water S/13/2005	EMSI Samula ID:	010501794-0003	Project:	8513.002		
D: GC/MS VOA#5 Sampling Date: 5/13/2005 5/13/2005 13/2005	Lab Eilo ID:	T3887 D	Sample Matrix:	Water		
KW Analysis Date 5/19/2005 19:24:00 LOW LOW LOW 5 ML EPA 624	Lab rile ID.	GC/MS VOA#5	Sampling Date:	5/13/2005		
S ML Level (low/med):	Instrument ID.	KW	Analysis Date	5/19/2005 1	9:24:00	
5 ML Method: EPA 624 COMPOUND Report Limit (µg/L) 1,3-Dichlorobenzene 0.25 1,2-Dichlorobenzene 0.25 1,2-Dichlorobenzene 0.25	Allalyst.	RTX-502 2 (0.25 mm)	Level (low/med):	LOW		
## EPA 624 Compound Conc. (µg/L) Conc. (µg/L) Compound Conc. (µg/L) Conc.	GC Column.	5 MI	Nominal Amount:	5 ML		
CAS NO COMPOUND Report Limit (µg/L) CONC. (µg/L) 1,3-Dichlorobenzene 0.36 0.25 1,2-Dichlorobenzene 0.37	Sample wayor. Dilution Factor:		Method:	EPA 624		
1,3-Dichlorobenzene 0.36 1,4-Dichlorobenzene 0.25 1,2-Dichlorobenzene 0.37	CAS NO	Ö	OMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
1,4-Dichlorobenzene 1,2-Dichlorobenzene	E44 72 4	1 3-Dichlorobenzene		0.36		ר
1,2-Dichlorobenzene	106.46-7	1.4-Dichlorobenzene		0.28	190	ב
	95-50-1	1,2-Dichlorobenzene		0.37		ן כ

VOLATILE ORGANICS ANALYSIS DATA SHEET

		Customer Sample#:	MW-15		
ah Namo.	FMSI ANAI YTICAL				
EMSL Sample ID:	010501794-0001	Project:	8513.002		
Lab File ID:	T3886.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/19/2005 18:46:00	46:00	
Analyst.	RTX-502 2 (0.25 mm)	Level (low/med):	LOW		
Sample wf/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO		COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	σ
74-87-3	Chloromethane		0.86		ם
75-01-4	Vinyl chloride		1.2		D
74-83-9	Bromomethane		0.52		D
75-00-3	Chloroethane		0.41		>
75-69-4	Trichlorofluoromethane		0.59		כ
107-02-8	Acrolein		15		>
75-35-4	1,1-Dichloroethene		0.33		>
75-09-2	Methylene chloride		0.35		o
107-13-1	Acrylonitrile		1.2		> :
156-60-5	trans-1,2-Dichloroethene		0.42		> :
75-34-3	1,1-Dichloroethane		0.34		-
156-59-4	cis-1,2-Dichloroethene		0.29		>
67-66-3	Chloroform		0.30		S
71-55-6	1,1,1-Trichloroethane		0.44		5
56-23-5	Carbon tetrachloride		0.39		> :
71-43-2	Benzene		0.23		> :
107-06-2	1,2-Dichloroethane		0.29		>
79-01-6	Trichloroethene		0.37		>
78-87-5	1,2-Dichloropropane		0.23		5
75-27-4	Bromodichloromethane		0.31		>
110-75-8	2-Chloroethyl vinyl ether		0.49		0
10061-01-5	cis-1,3-Dichloropropene		0.54		>
108-88-3	Toluene		0.33		>
10061-02-6	trans-1,3-Dichloropropene	e	0.55		5
79-00-5	1,1,2-Trichloroethane		0.32		> :
127-18-4	Tetrachloroethene		0.34		0
124-48-1	Dibromochloromethane		0.27		D
108-90-7	Chlorobenzene		0.21	0.65	
100-41-4	Ethylbenzene		0.20		D
108-38-3	Xylene (para & meta)		0.61		ם
95-47-6	Xylene (ortho)		0.31		> :
75-25-2	Bromoform		0.36		-
79-34-5	1,1,2,2-Tetrachloroethane	0	0.27		o =
541-73-1	1,3-Dichlorobenzene		0.36		0

FORM1-VOLATILE SampleList: 051905T ERM: C:\HPCHEM\1\624ERMS\624.erm Printed: 05/23/05 06:40:37 PM

		Customer Sample#:	MW-15	10	
Lab Name:	EMSL ANALYTICAL				
FMSL Sample ID:	010501794-0001	Project:	8513.002		
I ah File ID:	T3886.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/13/2005		
Analyst:	₩	Analysis Date	5/19/2005 18:46:00	:46:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol-	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO		COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	σ
106-46-7	1.4-Dichlorobenzene		0.25		כ
95-50-1	1,2-Dichlorobenzene		0.37		כ
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	al Quantitation Level			

	A STATE OF THE PARTY OF THE PAR	Customer Sample#	MW-23		
	EMS! ANA! VTICA!				
Lab Name: FMSL Sample ID:	010501794-0002	Project:	8513.002		
Lab Eilo ID:	T3875 D	Sample Matrix	Water		
Lab rite ID:	COMS VOA#5	Sample manny.	5/13/2005		
mstrument ID.	NA CHOO	Analysis Date	5/18/2005 21:40:00	1:40:00	
Alianyst.	RTX-502 2 (0.25 mm)	Level (low/med):	TOM		
Sample wt/vol:		Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO	00	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	σ
74-87-3	Chloromethane		0.86		ס
75 01-4	Vinyl chloride		1.2		n
74-83-9	Bromomethane		0.52		⊃
75-00-3	Chloroethane		0.41		⊃
75-69-4	Trichlorofluoromethane		0.59		D
107-02-8	Acrolein		15		כ
75-35-4	1,1-Dichloroethene	THE RESIDENCE OF THE PARTY OF T	0.33		_
75-09-2	Methylene chloride	The second secon	0.35	0.56	В
107-13-1	Acrylonitrile		1.2		⊃
156-60-5	trans-1,2-Dichloroethene		0.42		>
75-34-3	1,1-Dichloroethane		0.34		ם
156-59-4	cis-1,2-Dichloroethene		0.29		>
67-66-3	Chloroform		0:30		⊃
71-55-6	1,1,1-Trichloroethane		0.44		D
56-23-5	Carbon tetrachloride		0.39		כ
71-43-2	Benzene		0.23		ם
107-06-2	1,2-Dichloroethane		0.29		>
79-01-6	Trichloroethene		0.37		D
78-87-5	1,2-Dichloropropane		0.23		ם
75-27-4	Bromodichloromethane		0.31		>
110-75-8	2-Chloroethyl vinyl ether		0.49		D
10061-01-5	cis-1,3-Dichloropropene		0.54		>
108-88-3	Toluene		0.33		D
10061-02-6	trans-1,3-Dichloropropene		0.55		5
79-00-5	1,1,2-Trichloroethane	44. c 1. c 1	0.32		>
127-18-4	Tetrachloroethene		0.34		>
124-48-1	Dibromochloromethane		0.27		D
108-90-7	Chlorobenzene		0.21		ם
100-41-4	Ethylbenzene		0.20		ם
108-38-3	Xylene (para & meta)		0.61		ے ا
95-47-6	Xylene (ortho)		0.31		ם
75-25-2	Bromoform		0.36		ם
70.04.6	1.1.2.2-Tetrachloroethane		0.27		\supset

SHEET VOLATILE ORGANICS ANALYSIS DATA

		Customer Sample#:	MW-23		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501794-0002	Project:	8513.002		
Lab File ID:	T3875.D	Sample Matrix:	Water		
Instrument ID:	GCMS VOA#5	Sampling Date:	5/13/2005		
Analyst:	KW	Analysis Date	5/18/2005 21:40:00	1:40:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	TOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:	1	Method:	EPA 624		
CAS NO	Ö	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
541-73-1	1,3-Dichlorobenzene	And the second s	0.36		n
106-45-7	1,4 Dichlorobenzene		0.25		n
95-50-1	1,2-Dichlorobenzene		0.37		ח
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undefected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	ical Quantitation Level			

		Customer Sample#:	n n		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501794-0005	Project:	8513.002		
Lab File ID:	T3884.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/13/2005		
Analyst:	KW	Analysis Date	5/19/2005 17:28:00	7:28:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MOT		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO	ŏ	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
74-87-3	Chloromethane		0.86		ם
75-01-4	Vinyl chloride		1.2		n
74-83-9	Bromomethane		0.52		n
75-00-3	Chloroethane	A STATE OF THE PERSON OF THE P	0.41		D
75-69-4	Trichlorofluoromethane		0.59	2	n
107-02-8	Acrolein	And a second to a factor and the contributions to electronical fact the graph	15		ם
75-35-4	1,1-Dichloroethene		0.33		ח
75-09-2	Methylene chloride	Annual Annual Salata Caraca Caraca Salata Caraca Ca	0.35		D
107-13-1	Acrylonitrile	And design the contract of the	1.2	7	n
156-60-5	trans-1,2-Dichloroethene		0.42		ח
75-34-3	1,1-Dichloroethane	The same of the sa	0.34		n
156-59-4	cis-1,2-Dichloroethene		0.29		n
67-66-3	Chloroform	THE RESERVE OF THE PROPERTY OF	0.30		n
71-55-6	1,1,1-Trichloroethane		0.44		ם
56-23-5	Carbon tetrachloride		0.39		n
71-43-2	Benzene		0.23		n
107-06-2	1,2-Dichloroethane		0.29		n
79-01-6	Trichloroethene		0.37		ח
78-87-5	1,2-Dichloropropane		0.23		n
75-27-4	Bromodichloromethane		0.31		D
110-75-8	2-Chloroethyl vinyl ether		0.49		ם
10061-01-5	cis-1,3-Dichloropropene		0.54		ח
108-88-3	Toluene	The state of the s	0.33	1.1	
10061-02-6	trans-1,3-Dichloropropene	0	0.55		n ·
79-00-5	1,1,2-Trichloroethane		0.32		D
127-18-4	Tetrachloroethene	A TOTAL OF THE PROPERTY OF T	0.34		n
124-48-1	Dibromochloromethane		0.27		n
108-90-7	Chlorobenzene		0.21		n
100-41-4	Ethylbenzene		0.20		n
108-38-3	Xylene (para & meta)		0.61		n
95-47-6	Xylene (ortho)		0.31		ח
75-25-2	Bromoform		0.36		ם
	1 1 2 7 Totrochlorocthon		700		:

		Customer Sample#:	FB		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501794-0005	Project:	8513.002		
Lab File ID:	T3884.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/13/2005		
Analyst:	ΚW	Analysis Date	5/19/2005 17:28:00	7:28:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO	ŏ	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	ø
541-73-1	1,3-Dichlorobenzene		0.36		n
106-46-7	1,4-Dichlorobenzene		0.25	0.27	
95-50-1	1,2-Dichlorobenzene	The second secon	0.37		ח
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	cal Quantitation Level			

SHEET VOLATILE ORGANICS ANALYSIS DATA

		Customer Sample#:	ДB		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501794-0006	Project:	8513.002		
Lab File ID:	T3885.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/13/2005	3:07:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO	33	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
74-87-3	Chloromethane	AND	0.86		n
75.01 4	Vinyl chloride	100000000000000000000000000000000000000	1.2		
74-83-9	Bromomethane		0.52		ס
75-00-3	Chloroethane	1 Mary 1 mars - 1 m annual and a second and	0.41		D
75-69-4	Trichlorofluoromethane	- W. Addition of the control of the	0.59		⊃
107-02-8	Acrolein		15		ח
75-35-4	1,1-Dichloroethene		0.33		ח
75-09-2	Methylene chloride	Total Communication of the Com	0.35	0.44	ш
107-13-1	Acrylonitrile		1.2		D
156-60-5	trans-1,2-Dichloroethene		0.42		D
75-34-3	1,1-Dichloroethane	AND THE RESERVE OF THE PARTY OF	0.34		⊃
156-59-4	cis-1,2-Dichloroethene		0.29		⊃
67-66-3	Chloroform		0:30		>
71-55-6	1,1,1-Trichloroethane		0.44		>
56-23-5	Carbon tetrachloride	A	0.39		ח
71-43-2	Benzene		0.23		5
107-06-2	1,2-Dichloroethane		0.29		ח
79-01-6	Trichloroethene		0.37		ם
78-87-5	1,2-Dichloropropane		0.23		_
75-27-4	Bromodichloromethane		0.31		ם
110-75-8	2-Chloroethyl vinyl ether		0.49		>
10061-01-5	cis-1,3-Dichloropropene		0.54		ם כ
108-88-3	Toluene		0.33		D .
10061-02-6	trans-1,3-Dichloropropene	G.	0.55		>
79-00-5	1,1,2-Trichloroethane		0.32		כ
127-18-4	Tetrachloroethene		0.34		>
124-48-1	Dibromochloromethane		0.27		כ
108-90-7	Chlorobenzene		0.21		>
100-41-4	Ethylbenzene		0.20		D
108-38-3	Xylene (para & meta)		0.61		⊃
95-47-6	Xylene (ortho)		0.31		ם
75-25-2	Bromoform		0.36		D
70 24 E	1.1.2.2-Tetrachloroethane		0.27		⊃

		Customer Sample#:	TB		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010501794-0006	Project:	8513.002		
Lab File ID:	T3885.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	5/13/2005		
Analyst:	KW	Analysis Date	5/19/2005 18:07:00	3:07:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO	ŏ	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	σ
541-73-1	1,3-Dichlorobenzene		0.36		Э
106-46-7	1,4-Dichlorobenzene		0.25		=
95-50-1	1,2-Dichlorobenzene		0.37		ם
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	ical Quantitation Level			

SHEET VOLATILE ORGANICS ANALYSIS DATA

Project: Sample Matrix: Sample Matrix: Sample Matrix: Sample Matrix: Sample Matrix: Sampling Date:			Customer Sample#:	VBLK01		
ID: GG/MS VOAMS Paragraph Matrix: Water	Lab Name:	EMSL ANALYTICAL				
Table	EMSL Sample ID:	M BLANK	Project:			
CALIFOCK	Lab File ID:	T3883.D	Sample Matrix:	Water		
CAS NO COMPOUND Levels (Lowned): LOW CONC. (Light) CAS NO COMPOUND Immt CONC. (Light) CAS NO COMPOUND Immt CONC. (Light) CAS NO COMPOUND Immt CONC. (Light) CAS NO COMPOUND Limit CONC. (Light) CAS NO COMPOUND 0.52 CONC. (Light) CAS NO COMPOUND 0.52 CONC. (Light) CAS NO COMPOUND 0.52 CONC. (Light) CAS NO CONC. (Light) 0.52 CONC. (Light) Methyleine chloride 0.53 0.52 CONC. (Light) Methyleine chloride 0.33 0.52 CONC. (Light) Methyleine chloride 0.34 0.24 CONC. (Light) Intervention chloride 0.34 CONC. (Light)	Instrument ID:	GC/INIS VOA#3	Applying Date:	5/10/2005 1	3.50.00	
CAS NO COMPOUND Report (upt.) 5 ML CAS NO COMPOUND Report (upt.) CONC. (upt.) CAS NO Chloromethane 0.52 CONC. (upt.) Chloromethane 0.52 CONC. (upt.) Chloromethane 0.52 CONC. (upt.) Chloromethane 0.41 CONC. (upt.) Trichorofluoromethane 0.33 0.52 Acrolein 0.33 0.52 Methyleine chloride 0.34 0.29 I 1-Dichloroethane 0.34 0.29 I 1-Dichloroethane 0.29 0.29 I 1-Dichloroethane 0.29 0.23 I 1-Dichloroethane 0.23 0.23 I 1-Dichloroethane 0.34 0.34 I 1-Dichloroethane 0.34 0.34 I 1-Dichloroethane 0.34	Analyst: GC Column:	-502.2	Level (low/med):	LOW		
CAS NO COMPOUND Report Limit CONC. (ug/L) CAS NO COMPOUND Limit Local CONC. (ug/L) Mary chloride 0.43 0.44 Methylene chloride 0.52 0.44 Trichlorotehene 0.33 0.52 Acryolnitrie 0.33 0.52 Acryolnitrie 0.33 0.52 Itans-1.2-Dichlorotehene 0.33 0.52 Chilorotehene 0.33 0.52 Acryolnitrie 0.33 0.52 Itans-1.2-Dichlorotehene 0.34 0.34 Chilorotehene 0.33 0.33 Chilorotehene 0.34 0.33 Chilorotehene 0.33 0.23 Trichlorotehene 0.33 0.23 Trichlorotehene 0.33 0.33 Las Chlorotehene 0.34 0.34 Las Chlorotehene 0.34 0.34 Las Lichlorotehene 0.23 0.21 Las Lichlorotehene 0.23 0.21 Chlorobenzene <	Sample wt/vol:		Nominal Amount:	5 ML		
CAS NO COMPOUND Limit (tgg/L) CONC. (tgg/L) Chloromethane 0.52 0.52 Chloromethane 0.53 0.52 Chlorosthane 0.59 0.35 Tricklorosthane 0.35 0.52 Acrotein 0.35 0.52 Methylene chlorosthane 0.35 0.52 Acrotein 0.34 0.39 I.1-Dichlorosthane 0.34 0.34 Chloroform 0.39 0.39 Chloroform 0.34 0.34 I.2-Dichlorosthane 0.28 0.39 Chloroform 0.34 0.34 I.2-Dichlorosthane 0.33 0.34 I.2-Dichlorosthane 0.32 0.33 I.2-Dichloroptopene 0.34 0.34 I.2-Dichloroptopene 0.32 0.33 I.2-Dichloroptopene 0.34 0.34 I.2-Dichloroptopene 0.34 0.34 I.2-Dichloroptopene 0.34 0.34 I.1-Trichloroptopene 0.34 0.34<	Dilution Factor:		Method:	EPA 624		
Chloromethane 0.86 Vinyl chloride 1.2 Bromomethane 0.52 Chloroethane 0.41 Trichlorolloromethane 0.35 Acrylonitrile 1.2 Acrylonitrile 0.35 Acrylonitrile 0.34 Acrylonitrile 0.34 Acrylonitrile 0.34 Acrylonitrile 0.34 Acrylonitrile 0.34 Acrylonitrile 0.34 Chlorochm 0.34 Chlorochm 0.34 Chlorochm 0.34 Chlorochm 0.23 Benzene 0.23 I.2-Dichloroethane 0.23 Bromodichloromethane 0.31 Bromodichloroethane 0.33 Bromodichloroethane 0.34 I.1.2-Dichloropropene 0.34 I.1.2-Trichloroethane 0.34 I.1.2-Trichloroethane 0.34 I.1.2-Trichloroethane 0.34 I.1.2-Trichloroethane 0.34 I.1.2-Trichloroethane	CAS NO	ŏ	OMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
Vinyl choride 1.2 Bromomethane 0.52 Chloroethane 0.41 Trichlorollucomethane 0.59 Acrolin 0.33 Methylene chloride 0.35 Acrylonitrile 0.35 trans-1.2-Dichloroethane 0.29 cis-1.2-Dichloroethane 0.29 Chloropthane 0.23 Benzene 0.23 Trichloroethane 0.23 Benzene 0.23 Trichloroethane 0.23 Bornodichloromethane 0.23 1.2-Dichloroptopene 0.23 Schloroethane 0.23 Incistance thane 0.23 Trichloroethane 0.23 Schloroethane 0.31 J.2-Dichloropropene 0.55 J.2-Dichloroethane 0.33 Listachloroethane 0.34 Toluene 0.32 Interchoroethane 0.34 J.1.2-Trichloroethane 0.34 Joluene 0.34 Interchoroethane <t< td=""><td>74-87-3</td><td>Chloromethane</td><td>A ST A STATE OF THE STATE OF TH</td><td>0.86</td><td></td><td>ס</td></t<>	74-87-3	Chloromethane	A ST A STATE OF THE STATE OF TH	0.86		ס
Bromomethane 0.52 Chloroethane 0.41 Trichlorofluoromethane 0.59 Acrolein 1.2 Methylencethene 0.35 0.52 Acrylonitrile 1.2 0.35 0.52 Intrass-1.2-Dichloroethene 0.29 0.29 0.29 Intrass-1.2-Dichloroethene 0.29 0.29 0.29 Chloroform 0.23 0.23 0.23 Entrass-1.2-Dichloroethene 0.23 0.23 0.23 Intraction of theme 0.23 0.23 0.23 Intraction of theme 0.31 0.31 0.31 Introduction of theme 0.33 0.34 0.33 Introduction of theme 0.33 0.34 0.34 Introduction of theme 0.33 0.34 0.34 Interachloroethene 0.27 0.21 0.27 Introduction of theme 0.27 0.20 0.21 Introduction of the mean 0.34 0.31 0.31 Introduction of the mean	75-01-4	Vinyl chloride		1.2		-
Chloroethane 0.41 Trichlorolluoromethane 0.59 Acrolein 11-Dichloroethene 0.33 0.52 Methyleine chloride 0.35 0.52 Acylonitrile 0.23 0.52 Acylonitrile 0.29 0.29 Itans-1.2-Dichloroethane 0.30 0.23 Chloroform 0.34 0.23 Enzene 0.23 0.23 Carbon tetrachloroethane 0.23 0.23 Benzene 0.24 0.29 1.2-Dichloroethane 0.23 0.23 Benzene 0.23 0.23 1.2-Dichloroethane 0.33 0.33 Enhoroethy liviny ether 0.23 0.49 2-Chloroethyl viny ether 0.33 0.49 2-G trans-1.3-Dichloropropene 0.33 0.49 2-6 trans-1.3-Dichloropropene 0.27 0.27 2-6 trans-1.3-Dichloroethane 0.23 0.27 2-6 trans-1.3-Dichloroethane 0.23 0.23 <	74-83-9	Bromomethane		0.52		ח
Trichloroethane 0.58 Acrolein 11-Dichloroethene 0.33 0.62 Methylene chloride 0.35 0.62 Acrylonitrile 1.2 0.42 trans-1,2-Dichloroethene 0.34 0.30 cis-1,2-Dichloroethane 0.39 0.23 Chloroform 0.39 0.23 Enzene 0.23 0.23 1,1-Trichloroethane 0.23 0.23 Benzene 0.23 0.23 1,2-Dichloroethane 0.23 0.23 Benzene 0.23 0.23 1,2-Dichloroethane 0.23 0.23 Benzene 0.23 0.23 1,2-Dichloroethane 0.23 0.23 2-Chloroethy vinyl ether 0.33 0.27 2-Chloroethy vinyl ether 0.27 0.27 1,1,2-Trichloroethane 0.27 0.27 Dibromochloromethane 0.20 0.20 Ethylberzene 0.20 0.21 Chlorobenzene 0.20 0.20 <tr< td=""><td>75-00-3</td><td>Chloroethane</td><td></td><td>0.41</td><td></td><td>n</td></tr<>	75-00-3	Chloroethane		0.41		n
y Acrolein 15 1,1-Dichlorethene 0.33 0.52 Methylene chloride 0.35 0.52 Acrylonitrile 1,1-Dichlorethene 0.42 I,1-Dichlorethene 0.34 0.39 Chloroform 0.39 0.44 Chloroform 0.39 0.23 Benzene 0.23 0.23 I,1-Trichloroethane 0.23 0.23 Benzene 0.23 0.23 I,2-Dichloropropane 0.23 0.23 Bromodichloromethane 0.31 0.23 I (annocity vinyl ether 0.34 0.32 I (ans.1,3-Dichloropropene 0.34 0.33 I (ans.1,3-Dichloropropene 0.32 0.32 I (ans.1,3-Dichloropropene 0.34 0.32 I (ans.1,3-Dichloropropene 0.34 0.34 I (ans.1,3-Dichloropropene 0.34 0.34 I (ans.1,3-Dichloropropene 0.27 0.27 Chlorobenzoe 0.29 0.27 Chlorobenzoe 0.20	75-69-4	Trichlorofluoromethane		0.59		_
4,1-Dichloroethene 0.33 Methylene chloride 0.35 0.52 Acrylonitrile 1.2 0.34 I (1-Dichloroethene 0.34 0.39 clas-1,2-Dichloroethene 0.29 0.39 clas-1,2-Dichloroethene 0.29 0.29 Carbon tetrachloride 0.29 0.29 Eenzene 0.29 0.29 I (2-Dichloroethane 0.23 0.23 Benzene 0.29 0.23 I (2-Dichloroptopane 0.23 0.23 Bromodichloromethane 0.23 0.23 I (2-Dichloroptopane 0.23 0.23 I (2-Dichloroptopane 0.23 0.23 I (2-Dichloroptopane 0.23 0.23 I (3-Dichloroptopane 0.23 0.23 I (3-Dichloroptopane 0.23 0.23 I (1,2-Trichloropthane 0.23 0.24 I (1,2-Trichloroethane 0.24 0.24 Chlorobenzane 0.24 0.27 Chlorobenzane 0.23 0.24	107-02-8	Acrolein	The state of the s	15		ח
Methylene chloride 0.35 0.52 Acrylonitrile 1.2 1.2 trans-1,2-Dichloroethene 0.42 0.29 1,1-Dichloroethene 0.29 0.29 cis-1,2-Dichloroethene 0.30 0.29 Chloroform 0.39 0.23 Benzene 0.23 0.23 Trichloroethane 0.37 0.23 Trichloroethane 0.34 0.23 Li-Dichloropropene 0.23 0.23 Li-Dichloroethane 0.33 0.34 Li-Dichloroethane 0.34 0.34 Li-S Cick-1,3-Dichloropropene 0.35 0.35 Li-S Cick-1,3-Dichloropropene 0.35 0.35 Left ans-1,3-Dichloropropene 0.35 0.35 Latrachloroethane 0.34 0.34 Chlorobenzene 0.20 0.21 Chlorobenzene 0.20 0.21 Chloropenzene 0.34 0.31 Chloropenzene 0.34 0.31 Chloropenzene 0.34 0.3	75-35-4	1,1-Dichloroethene		0.33		ם
Acylonitrile 1.2 trans-1,2-Dichloroethene 0.42 1,1-Dichloroethane 0.34 cis-1,2-Dichloroethane 0.29 Chloroform 0.39 Carbon tetrachloride 0.23 Benzene 0.23 1,2-Dichloroethane 0.23 Perzene 0.23 1,2-Dichloroethane 0.23 Producthoroethane 0.31 Producthoroethane 0.34 1,2-Dichloropropene 0.34 2-Chloroethyl vinyl ether 0.49 2-Chloroethyl vinyl ether 0.54 1-5 cis-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloroethane 0.35 Dibromochloroethane 0.27 Chlorobenzene 0.27 Chlorobenzene Ethylbenzene Xylene (para & meta) 0.01 Kylene (ortho) 0.34 0.36 0.31 0.37 0.31	75-09-2	Methylene chloride		0.35		
trans-1,2-Dichloroethene 0.34 1,1-Dichloroethane 0.39 Chloroform 0.30 Chloroform 0.30 1,1,1-Trichloroethane 0.39 Benzene 0.23 Carbon tetrachloride 0.37 Trichloroethane 0.37 Trichloroethane 0.37 Trichloroethane 0.31 Bromodichloromethane 0.31 2-Chloroethyl vinyl ether 0.33 I,2-Dichloropropene 0.33 I,2-Dichloropropene 0.33 I,2-Dichloropropene 0.33 I (1,1,2-Trichloroethane 0.33 I (1,1,2-Trichloroethane 0.33 I (1,2-Trichloroethane 0.33 I (1,3-Trichloroethane 0.33	107-13-1	Acrylonitrile		1.2		ם
1,1-Dickloroethane 0.34 cis-1,2-Dickloroethane 0.29 Chloroform 0.30 1,1,1-Trichloroethane 0.39 Carbon tetrachloride 0.23 Benzene 0.23 1,2-Dickloroethane 0.23 Trichloroethane 0.37 Trichloroethane 0.31 Bromodichloromethane 0.33 1-2-Dickloropropene 0.33 1-5 cis-1,3-Dickloropropene 0.33 2-Chloroethyl vinyl ether 0.33 1-5 cis-1,3-Dickloropropene 0.33 2-Chloroethyl vinyl ether 0.34 1-5 cis-1,3-Dickloropropene 0.34 1-5 cis-1,3-Dickloropropene 0.27 1-5 Chlorobenzene 0.27 Chlorobenzene 0.20 Ethylbenzene 0.20 Xylene (para & meta) 0.61 Kylene (ortho) 0.31 Bromoform 0.36 Bromoform 0.36	156-60-5	trans-1,2-Dichloroethene		0.42		D
cis-1,2-Dichloroethene 0.29 Chloroform 0.30 1,1,1-Trichloroethane 0.44 Carbon tetrachloride 0.39 Benzene 0.23 1,2-Dichloroethane 0.23 Trichloroethane 0.23 Bromodichloromethane 0.31 2-Chloroethyl vinyl ether 0.49 2-Chloroethyl vinyl ether 0.31 2-Chloroethyl vinyl ether 0.31 1-5 cis-1,3-Dichloropropene 0.33 1-5 cis-1,3-Dichloropropene 0.34 1-5 Toluene 0.35 1-1,2-Trichloroethane 0.35 1-1,2-Trichloroethane 0.35 1-1,2-Trichloroethane 0.35 Chlorobenzene 0.27 Ethylbenzene 0.20 Ethylbenzene 0.20 Ethylbenzene 0.31 Xylene (para & meta) 0.31 Xylene (ortho) 0.36 Bromoform 0.36	75-34-3	1,1-Dichloroethane		0.34		>
Chloroform 0.30 1.1.1-Trichloroethane 0.44 Carbon tetrachloride 0.39 Benzene 0.23 1.2-Dichloroethane 0.29 Trichloroethane 0.37 I.2-Dichloroptopane 0.31 Bromodichloromethane 0.31 2-Chloroethyl vinyl ether 0.49 1.5 cis-1,3-Dichloroptopene 0.54 1.5 cis-1,3-Dichloroptopene 0.33 1.1 Colloroethane 0.34 1.1.2-Trichloroethane 0.35 1.1.2-Trichloroethane 0.35 Chlorobenzene 0.27 Ethylbenzene 0.27 Ethylbenzene 0.27 Kylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	156-59-4	cis-1,2-Dichloroethene		0.29		>
1.1,1-Trichloroethane 0.44 Carbon tetrachloride 0.39 Benzene 0.23 1,2-Dichloroethane 0.29 Trichloroethene 0.37 1,2-Dichloropropane 0.31 Bromodichloromethane 0.31 1-5 cis-1,3-Dichloropropene 0.54 1-5 cis-1,3-Dichloropropene 0.33 1-1.2-Trichloroethane 0.32 1-1.2-Trichloroethane 0.32 Chlorobenzene 0.27 Chlorobenzene 0.20 Ethylberzene 0.20 Kylene (para & meta) 0.31 Xylene (ortho) 0.31 Bromoform 0.36	37-66-3	Chloroform		0:30		>
Carbon tetrachloride 0.39 Benzene 0.23 1.2-Dichloroethane 0.37 Trichloroethene 0.37 1,2-Dichloroptopane 0.23 Bromodichloromethane 0.31 1-5 Chloroethyl vinyl ether 0.49 1-5 cis-1,3-Dichloropropene 0.54 1-5 trans-1,3-Dichloropropene 0.55 1-1 Toluene 0.33 1-1 Chloroethane 0.55 1-1 Chloroethane 0.34 1-1 Chlorobenzene 0.27 Chlorobenzene 0.27 Chlorobenzene 0.20 Ethylbenzene 0.20 Xylene (para & meta) 0.61 Xylene (ortho) 0.36	71-55-6	1,1,1-Trichloroethane		0.44		_
Benzene 0.23 1,2-Dichloroethane 0.29 Trichloroethene 0.37 1,2-Dichloroptopane 0.23 1,2-Dichloroptopane 0.23 Bromodichloromethane 0.49 2-Chloroethyl vinyl ether 0.54 1-5 Cis-1,3-Dichloropropene 0.55 1-5 Toluene 0.33 1-5 Toluene 0.34 1-1,2-Trichloroethane 0.35 Dibromochloromethane 0.27 Chlorobenzene 0.27 Ethylbenzene 0.20 Xylene (para & meta) 0.61 Xylene (ortho) 0.36 Bromoform 0.36	6-23-5	Carbon tetrachloride		0.39		ם
1,2-Dichloroethane 0.29 Trichloroethane 0.37 1,2-Dichloroptopane 0.23 Bromodichloromethane 0.31 2-Chloroethyl vinyl ether 0.49 1-5 cis-1,3-Dichloropropene 0.54 2-6 trans-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloropropene 0.35 1-1 0.35 0.35 2-6 trans-1,3-Dichloropropene 0.25 1-1 Chlorobenzene 0.27 Chlorobenzene 0.20 Ethylbenzene 0.20 Xylene (para & meta) 0.61 Kylene (ortho) 0.36 Bromoform 0.36	71-43-2	Benzene		0.23		כ
Trichloroethene 0.37 1,2-Dichloropropane 0.23 Bromodichloromethane 0.31 2-Chloroethyl vinyl ether 0.49 1-5 cis-1,3-Dichloropropene 0.54 2-6 trans-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloropropene 0.33 1-6 trans-1,3-Dichloropropene 0.55 2-6 trans-1,3-Dichloropropene 0.33 1-1,2-Trichloroethane 0.34 Dibromochloromethane 0.27 Chlorobenzene 0.20 Ethylbenzene 0.20 Xylene (para & meta) 0.61 Xylene (ortho) 0.36 Bromoform 0.36	107-06-2	1,2-Dichloroethane		0.29		ס
1,2-Dichloropropane 0.23 Bromodichloromethane 0.31 2-Chloroethyl vinyl ether 0.49 1-5 cis-1,3-Dichloropropene 0.54 2-6 trans-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloropropene 0.33 2-6 trans-1,3-Dichloropropene 0.34 1,1,2-Trichloroethane 0.34 Dibromochloromethane 0.27 Chlorobenzene 0.27 Ethylbenzene 0.20 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	79-01-6	Trichloroethene		0.37		ם
Bromodichloromethane 0.31 8 2-Chloroethyl vinyl ether 0.49 11-5 cis-1,3-Dichloropropene 0.54 2-6 trans-1,3-Dichloropropene 0.33 12-6 trans-1,3-Dichloropropene 0.35 4 Tetrachloroethane 0.34 1 Dibromochloromethane 0.27 7 Chlorobenzene 0.27 4 Ethylbenzene 0.20 4 Ethylbenzene 0.61 3 Xylene (para & meta) 0.61 Xylene (ortho) 0.36 Bromoform 0.36	78-87-5	1,2-Dichloropropane		0.23		ם
8 2-Chloroethyl vinyl ether 0.49 11-5 cis-1,3-Dichloropropene 0.54 3 Toluene 0.33 12-6 trans-1,3-Dichloropropene 0.55 4 Tetrachloroethene 0.34 4 Tetrachloroethene 0.27 7 Chlorobenzene 0.27 4 Ethylbenzene 0.20 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 3 Xylene (ortho) 0.31 Bromoform 0.36 0.36	75-27-4	Bromodichloromethane		0.31		כ
11-5 cis-1,3-Dichloropropene 0.54 3 Toluene 0.33 12-6 trans-1,3-Dichloropropene 0.55 4 Tetrachloroethane 0.32 4 Tetrachloroethane 0.27 7 Chlorobenzene 0.27 4 Ethylbenzene 0.20 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 3 Xylene (ortho) 0.36 Bromoform 0.36	110-75-8	2-Chloroethyl vinyl ether		0.49		∍
3 Toluene 0.33 12-6 trans-1,3-Dichloropene 0.55 4 Tetrachloroethene 0.34 1 Dibromochloromethane 0.27 7 Chlorobenzene 0.21 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 3 Xylene (ortho) 0.36 Bromoform 0.36	10061-01-5	cis-1,3-Dichloropropene		0.54		>
Rans-1,3-Dichloropropene 0.55 4 Tetrachloroethane 0.34 1 Dibromochloromethane 0.27 7 Chlorobenzene 0.21 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 3 Xylene (ortho) 0.36 Bromoform 0.36	108-88-3	Toluene		0.33		⊃
4 Tetrachloroethane 0.32 4 Tetrachloroethene 0.37 1 Dibromochloromethane 0.27 7 Chlorobenzene 0.21 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	10061-02-6	trans-1,3-Dichloropropen	D	0.55		n
4 Tetrachloroethene 0.34 1 Dibromochloromethane 0.27 7 Chlorobenzene 0.21 4 Ethylbenzene 0.61 3 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	79-00-5	1,1,2-Trichloroethane		0.32)
1 Dibromochloromethane 0.27 7 Chlorobenzene 0.21 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	127-18-4	Tetrachloroethene		0.34		n
7 Chlorobenzene 0.21 4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	124-48-1	Dibromochloromethane		0.27		>
4 Ethylbenzene 0.20 3 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	108-90-7	Chlorobenzene		0.21		ם
3 Xylene (para & meta) 0.61 Xylene (ortho) 0.31 Bromoform 0.36	100-41-4	Ethylbenzene		0.20		>
Xylene (ortho) 0.31 Bromoform 0.36	108-38-3	Xylene (para & meta)		0.61		n
Bromoform 0.36	35-47-6	Xylene (ortho)		0.31		ם
	75-25-2	Bromoform		0.36		ם

		Customer Sample#:	VBLK01		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	M BLANK	Project:			
Lab File ID:	T3883.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:			
Analyst:	KW	Analysis Date	5/19/2005 16:50:00	:50:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	MOT		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:	_	Method:	EPA 624		
CAS NO)5	COMPOUND	Report	CONC. (µg/L)	a
			(hg/L)		
541-73-1	1,3-Dichlorobenzene		0.36		Ω
106-46-7	1,4-Dichlorobenzene		0.25		n
95-50-1	1,2-Dichlorobenzene		0.37		D
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected be	Qualifler Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	cal Quantitation Level			

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTAIVELY IDENTIFIED COMPOUNDS

		Customer Sample#:	VBLK01	~	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	M BLANK	Project:			
Lab File ID:	T3883.D	Sample Matrix:	Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:			
Analyst:	KW	Analysis Date	5/19/2005 16:50:00	6:50:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:	_	Method:	EPA 624		
Compounds Found:	0				
CAS NO	COM	COMPOUND NAME	RT	EST. CONC. (µg/L)	a
	No Compounds Found	The second secon			
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	J in method blank ation.				

W		Customer Sample#:	VBLK01	_ :	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	M BLANK	Project:			
Lab File ID:	T3865.D	Sample Matrix:	Water	A AND COMMENT OF THE PARTY OF T	
Instrument ID:	GCMS VOA#5	Sampling Date:			
Analyst:	MX	Analysis Date	00:11:01 c002/81/6	00:11:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Dilution Factor:	J MIL	Method:	EPA 624		
CAS NO	ŏ	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	σ
74-87-3	Chloromethane		0.86	100000000000000000000000000000000000000	n
75-01-4	Vinyl chloride		12		n
74-83-9	Bromomethane		0.52		n
75-00-3	Chloroethane		0.41		n
75-69-4	Trichlorofluoromethane		0.59		ס
107-02-8	Acrolein		15		ח
75-35-4	1,1-Dichloroethene	The second secon	0.33		ח
75-09-2	Methylene chloride		0.35	0.63	
107-13-1	Acrylonitrile		1.2		ם
156-60-5	trans-1,2-Dichloroethene		0.42		ם
1634-04-4	Methyl-tert butyl ether		0.27		ם
75-34-3	1,1-Dichloroethane		0.34		ם
156-59-4	cis-1,2-Dichloroethene		0.29		ם
78-93-3	2-Butanone		0.53	7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ם
67-66-3	Chloroform		0.30		ם
71-55-6	1,1,1-Trichloroethane		0.44		ם
56-23-5	Carbon tetrachloride		0.39		ם
71-43-2	Benzene		0.23		n
107-06-2	1,2-Dichloroethane		0.29		ם
79-01-6	Trichloroethene		0.37		ח
78-87-5	1,2-Dichloropropane		0.23	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ם
75-27-4	Bromodichloromethane		0.31		כ
110-75-8	2-Chloroethyl vinyl ether		0.49		ם
10061-01-5	cis-1,3-Dichloropropene		0.54		ב
108-88-3	Toluene		0.33		ם
10061-02-6	trans-1,3-Dichloropropene	e	0.55		ם
79-00-5	1,1,2-Trichloroethane		0.32		D
127-18-4	Tetrachloroethene		0.34		כ
124-48-1	Dibromochloromethane		0.27		ם
108-90-7	Chlorobenzene		0.21		n
100-41-4	Ethylbenzene		0.20		ח
108-38-3	Xylene (para & meta)		0.61		ח
05 47 6	Xviene (ortho)		0.31		ח

SHEET VOLATILE ORGANICS ANALYSIS DATA

		Customer Sample#:	VBLK01		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	M BLANK	Project:			
Lab File ID:	T3865.D	Sample Matrix:	Water		
Instrument ID:	GCMS VOA#5	Sampling Date:			
Analyst:	KW	Analysis Date	5/18/2005 15:11:00	:11:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
ON SAC		QNEOGMOO	Report	CONC. (µq/L)	σ
			(µg/L)	·)	
75-25-2	Bromoform		0.36		n
79-34-5	1,1,2,2-Tetrachloroethane	d:	0.27		n
541-73-1	1,3-Dichlorobenzene		0.36		ח
106-46-7	1,4-Dichlorobenzene		0.25		ם
95-50-1	1,2-Dichlorobenzene		0.37		5
Qualifier Definitions					
U = Undetected	at the season of believely				
B = Compound detected in method blank	d in method blank				

B = Compound detected in method blank
E = Estimated value
J = Estimated Concentration. Detected below Practical Quantitation Level

SHEET TENTAIVELY IDENTIFIED COMPOUNDS VOLATILE ORGANICS ANALYSIS DATA

		Customer Sample#:	VBLK01	_	
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	MBLANK	Project:			
Lab File ID:	T3865.D	Sample Matrix:	Water		
Instrument ID:	GCMS VOA#5	Sampling Date:			
Analyst:	ΚW	Analysis Date	5/18/2005 15:11:00	5:11:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
Compounds Found:	0				
CAS NO	COM	COMPOUND NAME	RT	EST. CONC. (µg/L)	ø
	No Compounds Found	A CANADA CONTRACTOR OF THE PROPERTY OF THE PRO			
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value J = Estimated Concentration.	d in method blank ation.				

FORM1-VOLATILE_TIC

SHEET ANALYSIS DATA ORGANICS VOLATILE

i			MW-24 & FD	_	
	T5118 D	Sample Matrix:	Waste Water		
	GC/MS VOA#5	Sampling Date:	10/19/2005		
t et	SRK	Analysis Date	10/26/2005 19:04:00	19:04:00	
	RTX-502.2 (0.25 mm)	Level (low/med):	TOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:	-	Method:	EPA 624		
CAS NO	3	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
74-87-3	Chloromethane		0.86		ר
75-01-4	Vinyl chloride		1.2		ח
74-83-9 B	Bromomethane		0.52		Ð
75-00-3	Chloroethane		0.41		ם
75-69-4	Trichlorofluoromethane		0.59		D
107-02-8	Acrolein		15		ח
75-35-4	1,1-Dichloroethene		0.33		ח
75-09-2	Methylene chloride		0.35		ס
107-13-1 A	Acrylonitrile		1.2		n
	trans-1,2-Dichloroethene		0.42		ס
	1,1-Dichloroethane		0.34		כ
	cis-1.2-Dichloroethene		0.29		n
	Chloroform		0.30		ס
	1 1 1-Trichloroethane		0.44		n
	Carbon tetrachloride		0.39	-	ח
	Banzene		0.23		ח
	1 2-Dichloroethane		0.29		ח
	Tiplomothon Tiplom		0.37		=
78-87-5	1,2-Dichloropropane		0.23	1.8	
	Bromodichloromethane		0.31		n
8	2-Chloroethyl vinyl ether		0.49		כ
-5	cis-1,3-Dichloropropene		0.54		כ
	Toluene		0.33		ס
-6	trans-1,3-Dichloropropene	60	0.55		ס
79-00-5	1,1,2-Trichloroethane		0.32		ח
	Tetrachloroethene		0.34		כ
124-48-1	Dibromochloromethane		0.27		ס
	Chlorobenzene		0.21		n
	Ethylbenzene		0.20		ס
	Xylene (para & meta)		0.61		ס
	Xylene (ortho)		0.31		ם
	Bromoform		0.36		כ
	1,1,2,2-Tetrachloroethane		0.27		n
	1,3-Dichlorobenzene		0.36		ס

1 of 2

		Customer Sample#:	MW-24		
Lab Name:	EMSL ANALYTICAL				
EMSL Sample ID:	010504247-0002	Project:	MW-24 & FB		
Lab File ID:	T5118.D	Sample Matrix:	Waste Water		
Instrument ID:	GC/MS VOA#5	Sampling Date:	10/19/2005		
Analyst	SRK	Analysis Date	10/26/2005 19:04:00	9:04:00	
GC Column:	RTX-502.2 (0.25 mm)	Level (low/med):	LOW		
Sample wt/vol:	5 ML	Nominal Amount:	5 ML		
Dilution Factor:		Method:	EPA 624		
CAS NO	ŏ	COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	a
106-46-7	1,4-Dichlorobenzene		0.25		ם
95-50-1	1,2-Dichlorobenzene		0.37		>
Qualifier Definitions U = Undetected					
B = Compound detected in method blank	in method blank				
E = Estimated value J = Estimated Concentrat	E = Estimated value J = Estimated Concentration. Detected below Practical Quantitation Level	tical Quantitation Level			

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-24 Group: 5/18/05 5/23/05 Lab File ID: C7937.D 1.0 Lab Sample ID: 1794-4 Date Analyzed: Dilution Factor: Date Extracted: Date Received: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) (g/mL ML Site: (nF) EMSL ANALYTICAL WATER 970.0 1.0 Z Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Lab Name: Level:

Concentration Units:

1	Compound	(ug/L or ug/Kg) ug/L	0
N-nit	N-nitrosodimethylamine	5	n
bis(2	bis(2-Chloroethy!)ether	2	Û
1,3-1	1,3-Dichlorobenzene	2	Ω
1,4-1	1,4-Dichlorobenzene	2	n
1,2-	1,2-Dichlorobenzene	2	n
bis(bis(2-chloroisopropyl)ether	3	U
N-N	N-Nitroso-Di-n-propylamine	2	Ω
He	Hexachloroethane	2	n
Nitr	Nitrobenzene	3	Ω
Isol	Isophorone	2	n
)siq	bis(2-Chloroethoxy)methane	2	U
1,2	1,2,4-Trichlorobenzene	2	Ω
Naj	Naphthalene	2	U
Hey	Hexachlorobutadiene	2	Ω
Hey	Hexachlorocyclopentadiene	5	U
2-C	2-Chloronaphthalene	2	n
Din	Dimethylphthalate	2	Ŋ
Ace	Acenaphthylene	2	n
2,6	2,6-Dinitrotoluene	2	Ω
Ace	Acenaphthene	2	
2,4	2,4-Dinitrotoluene	3	n
Die	Diethylphthalate	2	Ω
Flu	Fluorene	2	Ω
4-C	4-Chlorophenyl-phenylether	2	n
n-n	n-Nitrosodiphenylamine	3	Ω
1,2	1,2-Diphenylhydrazine(as azo)	2	n
4-B	4-Bromophenyl-phenylether	1	U
Hey	Hexachlorobenzene	1	Ω
Phe	Phenanthrene	2	U
Ant	Anthracene	1	Ω
Di-	Di-n-butylphthalate	2	Ω
Flu	Fluoranthene	1[D
Ben	Benzidine	10	Ω

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MW-21 Contract: EMSL ANALYTICAL

Lab Name:

Location: (g/mL ML Site: WATER 970.0 Matrix: (soil/water) Sample wt/vol: Project No.:

Lab File ID: C7937.D Lab Sample ID: 1794-4

Group:

decanted: (Y/N): (low/med) % Moisture: Level:

5/18/05 Date Extracted:

Z

1000 (uL)

Date Received:

(nF) 1.0 Concentrated Extract Volume: Injection Volume:

5/23/05 1.0 Dilution Factor: Date Analyzed:

GPC Cleanup: (Y/N)

Z

pH:

		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/L	0
129-00-0	Pyrene	2	Ω
85-68-7	Butylbenzylphthalate	2	Ω
56-55-3	Benzo[a]anthracene		Ŋ
91-94-1	3,3'-Dichlorobenzidine	5	Ω
218-01-9	Chrysene	1	n
117-81-7	bis(2-Ethylhexyl)phthalate	3	Ω
117-84-0	Di-n-octylphthalate	9	n
205-99-2	Benzo[b]fluoranthene	3	Ω
207-08-9	Benzo[k]fluoranthene	5	Ω
50-32-8	Benzo[a]pyrene	2	Ω
193-39-5	Indeno[1,2,3-cd]pyrene	9	Ω
53-70-3	Dibenz[a,h]anthracene	4	U
191-24-2	Benzo[g,h,i]perylene	9	Ω

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-4 Group: 5/18/05 5/23/05 Lab File ID: C7942.D 3.0 Lab Sample ID: 1794-3 Date Analyzed: Dilution Factor: Date Extracted: Date Received: Contract: Location: Z pH: decanted: (Y/N): (nF) (g/mL ML Site: 1000 (nF) Lab Name: EMSL ANALYTICAL WATER 970.0 1.0 Z Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) (low/med) Injection Volume: Sample wt/vol: % Moisture: Project No.: Level:

	CONTRACTOR OF THE PROPERTY OF		Concentration Linits:	
mulp. (1)				

CAS No.	Compound	(ug/L or ug/Kg) ug/L	0
62-75-9	N-nitrosodimethylamine	14	U
108-95-2	Phenoi	7	U
111-44-4	bis(2-Chloroethyl)ether	7	n
95-57-8	2-Chlorophenol	9	U
541-73-1	1,3-Dichlorobenzene	7	U
106-46-7	1,4-Dichlorobenzene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
108-60-1	bis(2-chloroisopropyl)ether	80	U
621-64-7	N-Nitroso-Di-n-propylamine	5	U
67-72-1	Hexachloroethane	9	U
98-95-3	Nitrobenzene	8	Ω
78-59-1	Isophorone	7	U
88-75-5	2-Nitrophenol	4	U
105-67-9	2,4-Dimethylphenol	8	U
111-91-1	bis(2-Chloroethoxy)methane	9	n
120-83-2	2,4-Dichlorophenol	12	D
120-82-1	1,2,4-Trichlorobenzene	7	D
91-20-3	Naphthalene	9	n
87-68-3	Hexachlorobutadiene	9	D
59-50-7	4-Chloro-3-methylphenol	9	Ω
77-47-4	Hexachlorocyclopentadiene	15	U
88-06-2	2,4,6-Trichlorophenol	9	U
91-58-7	2-Chloronaphthalene	5	Ω
131-11-3	Dimethylphthalate	9	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	9	Ω
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	11	U
100-02-7	4-Nitrophenol	15	U
121-14-2	2,4-Dinitrotoluene	∞	D
84-66-2	Diethylphthalate	5	D
86-73-7	Fluorene	5	ם
7005-72-3	4-Chlorophenyl-phenylether	5	D

FORM I SV

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

1794-3 1W-4

Lab Name: EMSL ANALYTICAL	Contract:		MW-
Project No.:	Location:		Group:
Matrix: (soil/water) WATER		Lab Sample ID: 1794-3	1794-3
Sample wt/vol: 970.0 (g/mL ML	1	Lab File ID: C7942.D	C7942.D
Level: (low/med)		Date Received:	
% Moisture:	Z):	Date Extracted: 5/18/05	5/18/05
Concentrated Extract Volume: 1000 (uL)		Date Analyzed: 5/23/05	5/23/05
Injection Volume: 1.0 (uL)		Dilution Factor:	3.0

pH: z GPC Cleanup: (Y/N)

		Concentration Units:		
CAS No.	Compound	(ug/L or ug/Kg) ug/L	7	0
534-52-1	4,6-Dinitro-2-methylphenol	7		n
9-08-98	n-Nitrosodiphenylamine	6		U
122-66-7	1,2-Diphenylhydrazine(as azo)	9		n
101-55-3	4-Bromophenyl-phenylether	4		n
118-74-1	Hexachlorobenzene	4		n
87-86-5	Pentachlorophenol	25		Ω
85-01-08	Phenanthrene	5		U
120-12-7	Anthracene	4		n
84-74-2	Di-n-butylphthalate	9		n
206-44-0	Fluoranthene	4		U
92-87-5	Benzidine	31		n
129-00-0	Pyrene	9		n
85-68-7	Butylbenzylphthalate	9		Ω
56-55-3	Benzo[a]anthracene	4		n
91-94-1	3,3'-Dichlorobenzidine	16		Ω
218-01-9	Chrysene	4		n
117-81-7	bis(2-Ethylhexyl)phthalate	10		
117-84-0	Di-n-octylphthalate	∞		-
205-99-2	Benzo[b]fluoranthene	5		J
207-08-9	Benzo[k]fluoranthene	14		U
50-32-8	Benzo[a]pyrene	3		-
193-39-5	Indeno[1,2,3-cd]pyrene	19		ם
53-70-3	Dibenz[a,h]anthracene	11		n
191-24-2	Benzo[g,h,i]perylene	3		1

1B SAMPLE NO

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Group: Lab File ID: C7939.D 5/18/05 5/23/05 2.0 Lab Sample ID: 1794-1 1 D 1 0 1 0 1 1 1 1 1 D D D n D 1 1 Dilution Factor: Date Analyzed: Date Received: Date Extracted: ng/L 6 5 5 4 4 9 9 5 4 3 9 2 7 2 4 ∞ 2 4 4 4 10 4 3 4 3 4 Concentration Units: (ug/L or ug/Kg) Contract: Location: Z pH: decanted: (Y/N): N-Nitroso-Di-n-propylamine bis(2-Chloroethoxy)methane bis(2-chloroisopropyl)ether Hexachlorocyclopentadiene (EL 4-Chloro-3-methylphenol (g/mL ML N-nitrosodimethylamine bis(2-Chloroethyl)ether 1,2,4-Trichlorobenzene 2,4,6-Trichlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachlorobutadiene 2-Chloronaphthalene Site: 1000 2,4-Dimethylphenol 2,4-Dichlorophenol Hexachloroethane 2,6-Dinitrotoluene Dimethylphthalate (nF) 2-Chlorophenol Acenaphthylene 2-Nitrophenol Nitrobenzene Naphthalene Isophorone EMSL ANALYTICAL WATER Compound 0.086 1.0 Z Phenol Concentrated Extract Volume: GPC Cleanup: (Y/N) Matrix: (soil/water) (low/med) CAS No. 106-46-7 108-95-2 111-44-4 105-67-9 120-83-2 Injection Volume: 541-73-1 621-64-7 111-91-1 62-75-9 95-57-8 108-60-1 98-95-3 120-82-1 91-20-3 131-11-3 208-96-8 606-20-2 59-50-7 88-06-2 77-47-4 91-58-7 67-72-1 88-75-5 95-50-1 78-59-1 87-68-3 Sample wt/vol: % Moisture: Project No.: Lab Name: Level:

FORM I SV

DD

3

4-Chlorophenyl-phenylether

7005-72-3

2,4-Dinitrotoluene

121-14-2

84-66-2

4-Nitrophenol

Diethylphthalate

Fluorene

2,4-Dinitrophenol

51-28-5 100-02-7

83-32-9

Acenaphthene

3

5 5

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET[

1794.1 Group: AW-5/18/05 5/23/05 Lab File ID: C7939.D 2.0 Lab Sample ID: 1794-1 Date Analyzed: Dilution Factor: Date Received: Date Extracted: Contract: Location: Z pH: decanted: (Y/N): 1000 (uL) (g/mL ML Site: (nF) Lab Name: EMSL ANALYTICAL WATER 0.086 1.0 Z Concentrated Extract Volume: Matrix: (soil/water) (low/med) Injection Volume:

Sample wt/vol:

Project No.:

% Moisture:

Level:

GPC Cleanup: (Y/N)

	0
	ng/L
Concentration Units:	(ug/L or ug/Kg)
	Compound
	CAS No.

CAS No.	Compound	(ug/L or ug/Kg) ug/L	0
534-52-1	4,6-Dinitro-2-methylphenol	5	n
86-30-6	n-Nitrosodiphenylamine	9	n
122-66-7	1,2-Diphenylhydrazine(as azo)	4	Ω
101-55-3	4-Bromophenyl-phenylether	2	n
118-74-1	Hexachlorobenzene	3	n
87-86-5	Pentachlorophenol	16	n
85-01-08	Phenanthrene	3	n
120-12-7	Anthracene	3	Ω
84-74-2	Di-n-butylphthalate	4	D
206-44-0	Fluoranthene	3	Ŋ
92-87-5	Benzidine	20	D
129-00-0	Pyrene	4	D
85-68-7	Butylbenzylphthalate	4	D
56-55-3	Benzo[a]anthracene	2	D
91-94-1	3,3'-Dichlorobenzidine	11	n
218-01-9	Chrysene	3	Ω
117-81-7	bis(2-Ethylhexyl)phthalate	5	n
117-84-0	Di-n-octylphthalate	11	Ω
205-99-2	Benzo[b]fluoranthene	9	Ω
207-08-9	Benzo[k]fluoranthene	6	n
50-32-8	Benzo[a]pyrene	4	Ω
193-39-5	Indeno[1,2,3-cd]pyrene	13	n
53-70-3	Dibenz[a,h]anthracene	∞	Ω
191-24-2	Benzo[g,h,i]perylene	11	n

SAMPLE NO

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

1794-2 MW-33 Group: 5/18/05 5/23/05 Lab File ID: C7938.D 2.0 1794-2 1 1 7 1 1 D 1 1 0 Lab Sample ID: Dilution Factor: Date Analyzed: Date Extracted: Date Received: ng/L 9 9 3 ∞ 4 9 2 2 5 4 2 4 4 4 10 4 3 4 4 Concentration Units: (ug/L or ug/Kg) Contract: Location: Z pH: decanted: (Y/N): N-Nitroso-Di-n-propylamine bis(2-Chloroethoxy)methane Hexachlorocyclopentadiene bis(2-chloroisopropyl)ether (nr) 4-Chloro-3-methylphenol Ä N-nitrosodimethylamine bis(2-Chloroethyl)ether 1,2,4-Trichlorobenzene 2,4,6-Trichlorophenol 1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachlorobutadiene 2-Chloronaphthalene (g/mL 2,4-Dimethylphenol Site: 1000 2,4-Dichlorophenol 2,6-Dinitrotoluene Dimethylphthalate Hexachloroethane (nF) Acenaphthylene 2-Chlorophenol 2-Nitrophenol Nitrobenzene Naphthalene Isophorone EMSL ANALYTICAL Compound WATER 970.0 1.0 Phenol Z Concentrated Extract Volume: GPC Cleanup: (Y/N) (low/med) Matrix: (soil/water) CAS No. 108-95-2 111-44-4 6-19-501 111-91-1 120-83-2 208-96-8 Injection Volume: 541-73-1 106-46-7 108-60-1 621-64-7 120-82-1 131-11-3 606-20-2 62-75-9 98-95-3 88-75-5 91-20-3 95-57-8 59-50-7 91-58-7 67-72-1 78-59-1 87-68-3 88-06-2 95-50-1 77-47-4 Sample wt/vol: % Moisture: Project No.: Lab Name: Level:

FORM I SV

4-Chlorophenyl-phenylether

7005-72-3

2,4-Dinitrotoluene

4-Nitrophenol

100-02-7

51-28-5

83-32-9

Diethylphthalate

84-66-2

86-73-7

Fluorene

2,4-Dinitrophenol

Acenaphthene

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0 0

				1794-2
Lab Name: EMSL ANALYTICAL	ıL	Contract:		
Project No.:	Site:	Location:		Group:
Matrix: (soil/water) WATER	K K		Lab Sample ID: 1794-2	1794-2
Sample wt/vol: 970.0	970.0 (g/mL ML		Lab File ID: C7938.D	C7938.D
Level: (low/med)	1		Date Received:	
% Moisture:	decanted: (Y/N):	z	Date Extracted: 5/18/05	5/18/05
Concentrated Extract Volume:	1000 (uL)		Date Analyzed: 5/23/05	5/23/05
Injection Volume: 1.0	1.0 (uL)		Dilution Factor:	2.0
GPC Cleanup: (Y/N) N				

		Concentration Units:		
CAS No.	Compound	(ug/L or ug/Kg)	ng/L	0
534-52-1	4,6-Dinitro-2-methylphenol	5		n
9-08-98	n-Nitrosodiphenylamine	9		n
122-66-7	1,2-Diphenylhydrazine(as azo)	4		n
101-55-3	4-Bromophenyl-phenylether	2		n
118-74-1	Hexachlorobenzene	3		n
87-86-5	Pentachlorophenol	16		n
85-01-08	Phenanthrene	4		n
120-12-7	Anthracene	3		U
84-74-2	Di-n-butylphthalate	4		n
206-44-0	Fluoranthene	3		n
92-87-5	Benzidine	21		U
129-00-0	Pyrene	4		U
85-68-7	Butylbenzylphthalate	4		n
56-55-3	Benzo[a]anthracene	2		U
91-94-1	3,3'-Dichlorobenzidine	11		U
218-01-9	Chrysene	3		U
117-81-7	bis(2-Ethylhexyl)phthalate	5		U
117-84-0	Di-n-octylphthalate	12		n
205-99-2	Benzo[b]fluoranthene	9		U
207-08-9	Benzo[k]fluoranthene	6		U
50-32-8	Benzo[a]pyrene	4		U
193-39-5	Indeno[1,2,3-cd]pyrene	13		U
53-70-3	Dibenz[a,h]anthracene	∞		n
191-24-2	Benzo[g,h,i]perylene	11		Ω

1 of 2

EMSL Analytical Inc.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

		Customer Sample#:	MW-24	-	
ah Name.	FMSI Analytical Inc.				
EMSL Sample ID:	010504247-0002	Project:	MW-24 & FB		
Lab File ID:	C9330.D	Sample Matrix:	Waste Water		
Instrument ID:	MSD-C	Sampling Date:	10/19/2005		
Analyst:	WRF	Date Extracted:	10/24/2005		
GC Column:	ZB-5MS (0.25 mm)	Analysis Date	10/27/2005 1:15:00 PM	:15:00 PM	
Level (low/med):	TOW	Sample wt/vol:	925 ML		
% Moisture:		Dilution Factor:	-		
F.		Conc. Extract Volume:	1000 (ul)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Method:	625ABN				
CAS NO		COMPOUND	Report Limit (µg/L)	CONC. (µg/L)	σ
62-75-9	N-nitrosodimethylamine	NAMES AND ADDRESS OF THE PARTY	5.4		D
108-95-2	Phenol		1.2		ס
111-44-4	bis(2-Chloroethyl)ether		1.6		ב
95-57-8	2-Chlorophenol		2.2		ס
541-73-1	1,3-Dichlorobenzene		4.1		ס
106-46-7	1,4-Dichlorobenzene	THE RESERVE AND THE PROPERTY OF THE PROPERTY O	1.4		n
95-50-1	1,2-Dichlorobenzene		1.3		ם
108-60-1	bis(2-chloroisopropyl)ether	her	1.7		ח
621-64-7	N-Nitroso-Di-n-propylamine	ine	1.3		D
67-72-1	Hexachloroethane		1.4		ם
98-95-3	Nitrobenzene		1.8		ח
78-59-1	Isophorone		1.5		D
88-75-5	2-Nitrophenol		2.3		ם
105-67-9	2,4-Dimethylphenol		2.2		ם
111-91-1	bis(2-Chloroethoxy)methane	nane	2.4		ח
120-83-2	2,4-Dichlorophenol		2.6		ח
120-82-1	1,2,4-Trichlorobenzene		1.5		ס
91-20-3	Naphthalene		1.5		ס
87-68-3	Hexachlorobutadiene		1.7		n
59-50-7	4-Chloro-3-methylphenol		2.4		D
91-58-7	2-Chloronaphthalene		2.4		ח
77-47-4	Hexachlorocyclopentadiene	ene	4.1		n
88-06-2	2,4,6-Trichlorophenol		2.4		ח
131-11-3	Dimethylphthalate		1.5		⊃
208-96-8	Acenaphthylene		3.9		ם
606-20-2	2,6-Dinitrotoluene		1.5		>
83-32-9	Acenaphthene		1.8		ם
51-28-5	2,4-Dinitrophenol		2.3		ם
100-02-7	4-Nitrophenol		1.6		ס
121-14-2	2,4-Dinitrotoluene		3.7		ם
84-66-2	Diethylphthalate	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.5		ם
		AND THE RESERVE AND THE PERSON NAMED IN COLUMN 1 IN CO	4	-	-

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FORM1--SV

SHEET DATA SEMIVOLATILE ORGANICS ANALYSIS

		Customer Sample#:	MW-24		
Lab Name:	EMSL Analytical Inc.	Project:	MW-24 & FB		
I ah Eila ID:	C9330 D	Sample Matrix:	Waste Water		
Instrument ID:	MSD-C	Sampling Date:	10/19/2005		
Analyst:	WRF	Date Extracted:	10/24/2005		
GC Column:	ZB-5MS (0.25 mm)	Analysis Date	10/27/2005 1:15:00 PM	15:00 PM	
Level (low/med):	ПОМ	Sample wt/vol:	925 ML		
% Moisture:		Dilution Factor: Conc. Extract Volume:	1000 (ul)		
GPC Cleanup(Y/N):	Z	Injection Volume:	1 (ul)		
Method:	NGACZO	-			
CAS NO		COMPOUND	Report Limit (µg/L)	CONC. (µg/L.)	a
7005-72-3	4-Chlorophenyl-phenylether	her	1.9		ח
534-52-1	4,6-Dinitro-2-methylphenol	loi	2.0		n
86-30-6	n-Nitrosodiphenylamine	MARKET ST	1.8		n
122-66-7	1,2-Diphenylhydrazine (as azobenzine)	as azobenzine)	1.7		n
101-55-3	4-Bromophenyl-phenylether	her	1.8		Þ
18-74-1	Hexachlorobenzene		1.9		⊃
87-86-5	Pentachlorophenol		2.1		ם
85-01-08	Phenanthrene		1.8		n
120-12-7	Anthracene		1.7		n
84-74-2	Di-n-butylphthalate		2.0		D
206-44-0	Fluoranthene		1.9		כ
92-87-5	Benzidine		7.4		ב
129-00-0	Pyrene		1.8		D
85-68-7	Butyłbenzylphthalate		2.0		ם
56-55-3	Benzo[a]anthracene		1.8		>
91-94-1	3,3'-Dichlorobenzidine		4.0		ס
218-01-9	Chrysene		2.1		⊃
117-81-7	bis(2-Ethylhexyl)phthalate	9	2.2		ס
117-84-0	Di-n-octylphthalate		2.0		n
205-99-2	Benzo[b]fluoranthene		2.0		ם
207-08-9	Benzo[k]fluoranthene		1.8		ס
50-32-8	Benzo[a]pyrene		1.7		ם
193-39-5	Indeno[1,2,3-cd]pyrene		2.3		D
53-70-3	Dibenz[a,h]anthracene		1.9		ם
191-24-2	Benzo[g,h,i]perylene		1.9		ם
Qualifier Definitions U = Undetected B = Compound detected in method blank E = Estimated value	in method blank	long I molive ithere . O			
= Estimated Concentra	= Estimated Concentration. Detected below Practical Quantitation Level	al Quantitation Level			

FORM1---SV

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